

**FORMER ASHTON MIDDLE SCHOOL  
HIGH STREET NORTH  
DUNSTABLE  
BEDFORDSHIRE**

**ARCHAEOLOGICAL STRIP, MAP AND  
SAMPLE INVESTIGATION**

**Albion**  
archaeology



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## Preface

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## Acknowledgements

*The project was monitored on behalf of the Local Planning Authority by Hannah Firth, Central Bedfordshire Council Archaeologist. The fieldwork was undertaken by Ben Barker (Project Officer) and Tori Guy (Archaeological Supervisor). This report has been prepared by Tori Guy with contributions from Jackie Wells (Finds Officer) and Joan Lightning (CAD Technician). All Albion projects are under the overall management of Drew Shotliff (Operations Manager).*

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## Key terms

The following terms or abbreviations are used throughout this report:

CBC	Central Bedfordshire Council
CBCA	Central Bedfordshire Council Archaeologist
CIfA	Chartered Institute for Archaeologists
DA	Development area
EBD	Event Bedfordshire
HER	Central Bedfordshire's Historic Environment Record
WSI	Written Scheme of Investigation



## **Non-Technical Summary**

*Central Bedfordshire Council granted planning permission and Listed Building consent (CB/16/03188/FULL and CB/16/003189/LB) for residential development (including the conversion of the existing listed school building to residential accommodation) on land at Ashton Middle School, Dunstable, Bedfordshire, LU6 1NH.*

*The site lies just outside the Roman and medieval core of Dunstable, as recorded in the Historic Environment Record (HER), and an archaeological trial trench evaluation was undertaken on the proposed development area. The evaluation revealed no archaeological remains pre-dating the post-medieval period but it did expose parts of a WWII air raid shelter that belonged to the school.*

*A condition was attached to the planning consent requiring the implementation of a Scheme of Heritage Asset Resource Management covering the locating, investigating and recording of the air raid shelter and the provision of archaeological monitoring of any groundworks that were likely to impact on as yet unrecorded archaeological remains.*

*The investigation took place between 24th January and 17th February 2017 and comprised the strip, map and sample investigation of the playing fields and all-weather sports pitch located to the north-east of the school.*

*The archaeological investigations revealed two distinct phases of land-use within the DA.*

*The excavation under the all-weather sports pitch revealed the earliest archaeological evidence, which comprised a series of largely perpendicular late medieval / early post-medieval ditches and the possible line of a trackway. These represent evidence for activity to the rear of burgage plots fronting Watling Street.*

*Revealed within the playing fields area, and part of the all-weather sports field, a WWII air raid shelter was identified and fully exposed at the subsoil horizon. It was built to protect students attending the school.*

*Its design was similar to the common and simple 'E'-shaped air raid shelter but with two arms connected to make a rectilinear '9'-shape. This shape was used in order to prevent blast debris travelling around corners, protecting people elsewhere in the shelter. At the southern and northern corners, staircases were identified. No emergency escape hatches were located, although it is likely that they were present as they are part of the prefabricated design. No fixtures or fittings were identified, suggesting that the internal elements of the shelter were removed once it had ceased to be used.*

*The results of the investigation suggest that the DA does not contain archaeological remains that could contribute further to the understanding of medieval Dunstable. The discovery of the later medieval / post-medieval features and the WWII school air-raid shelter are of local / regional significance. However, other examples of similar air raid shelters in much better states of preservation have been recorded within Luton and Dunstable.*



## 1. INTRODUCTION

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### 1.1 *Project Background*

Central Bedfordshire Council granted planning permission and Listed Building consent (CB/16/03188/FULL and CB/16/003189/LB) for residential development (including the conversion of the existing listed school building to residential accommodation) on land at Ashton Middle School, Dunstable, Bedfordshire, LU6 1NH.

The site lies just outside the Roman and medieval core of Dunstable, as recorded in the Central Bedfordshire and Luton Historic Environment Record (HER). An archaeological trial-trench evaluation of the site revealed no archaeological remains pre-dating the post-medieval period but it did expose parts of a probable WWII air raid shelter associated with the school (Albion Archaeology 2016a).

In accordance with Paragraph 141 of the National Planning Policy Framework, a condition (no. 2) was attached to the planning consent, requiring the preparation and implementation of a Scheme of Heritage Asset Resource Management (SHARM) (Albion Archaeology 2016b) covering the locating, investigating and recording of the air raid shelter, and potential further shelters, and the provision of archaeological monitoring of any groundworks that were likely to impact on as yet unrecorded archaeological remains.

### 1.2 *Site Location, Topography and Geology*

Dunstable is situated in southern Bedfordshire, with Luton 7km to the east and Leighton Buzzard 9.7km to the north-west. The north-eastern edge of Dunstable merges with Houghton Regis. The now redundant Ashton Middle School lies to the north of the centre of Dunstable, c. 400m north-west of the intersection of the town's two principal roads — the High Street (A5) and West Street/Church Street (A505) (Figure 1).

The development area (DA) lies within the grounds of the former school. It is bounded to the south-west by High Street North (A5), to the north-west and north-east by residential areas and to the south-east by Grove House Gardens. At the time of the archaeological fieldwork it comprised school buildings, playing field, all-weather sports pitch and hard-standing areas associated with a playground and car-park.

Dunstable lies on the northern edge of the chalk escarpment of the Chiltern Hills, with an underlying solid geology of Holywell Nodular Chalk Formation and New Pit Chalk Formation<sup>1</sup>. The topography of the area is undulating with a number of ridges and valleys. Dunstable town centre lies on relatively level, higher ground and the DA lies at c. 144.6m OD. It is centred on grid reference TL 501609 222332.

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<sup>1</sup> Contains British Geological Survey materials © NERC 2016



### 1.3 Archaeological Background

#### 1.3.1 Prehistoric (before AD 43)

Prehistoric activity within Dunstable is best represented by the route of Icknield Way, which follows the line of West Street, c. 570m to the south of the DA. To the south-west of the DA a long barrow, round barrow and part of a trackway have been recorded, whilst a find-spot comprising two Iron Age coins have been recovered c. 400m to the south-west. A circular cropmark (HER 12285), thought to be a ring ditch, is also known c. 440m to the north-east of the DA.

The most relevant prehistoric heritage assets to the DA, in terms of proximity, comprise Palaeolithic flakes and hand axes (HER 12286) found in the area of the school during 1888. They did not originate from this area, however, as they were imported with material used in the laying of gravel roads/paths, which was reported to have derived from Caddington. An Iron Age posthole was also uncovered during excavations in the landscaped park (HER 9431) to the east to the east of the DA.

#### 1.3.2 Roman (AD 43–410)

Dunstable lies at the crossroads of the Roman Watling Street (HER 5508) — running through Bedfordshire on its route from London to Holyhead on the line of the present-day A5, and the prehistoric Icknield Way. It is named as *Durocbrivis* (HER 135) in the Antonine Itinerary, a Roman road book describing routes throughout the Roman Empire and the towns along them (Simco 1984, 30). *Durocbrivis* was the name given by the Romans to the settlement at the crossroads of Watling Street and the Icknield Way, which is today called Dunstable.

Since the large-scale re-development and expansion of Dunstable from the mid-20th century onwards a considerable quantity of Roman remains have been excavated and recorded within the centre of the town, particularly near the crossroads, proving the existence of a sizable regional centre. The core of the Roman town seems to have radiated out for a distance of around 400m from the Icknield Way/Watling Street crossroads.

The DA lies c. 530m to the north-west of the crossroads, just outside the core of the Roman town as defined by the Central Bedfordshire and Luton HER. However, it lies within 100m of Roman Watling Street (HER 5508), High Street North, which means that although it appears to be located some distance away from the Roman centre, the presence of associated Roman remains cannot be discounted. In particular, there is an increased likelihood of the presence of roadside burials. Under Roman law burial cemeteries were prohibited within the limits of urban settlement and, therefore, they tended to be located along the major routes in and out of the town. In particular, burials have been uncovered in two locations on Albion Street (HER 122, HER 150, HER 14964 / EBD727), within 220m of the DA, and an early Roman cemetery was recorded west of High Street North (HER 17802/EBD 479, 763-4), c. 70m to the east of the DA. A large cemetery uncovered at Friary Field (HER 11284/ EBD749), c. 150m south of West Street, and a single burial found adjacent to West Street (HER 19725), c. 760m west of the town crossroads, also attest to the presence of roadside burials in other areas of Roman Dunstable and on roads leading out from it.





Previous archaeological investigations to the south-east of the DA, within 200m, include Former Queensway Hall (EBD 474, EBD694 and EBD471) and New Venue (EBD479) where a 1st–2nd-century cemetery (containing inhumations, cremation burials and a pyre site), ditches, pits and pottery of late Iron Age-early Roman date were uncovered.

Roman activity has also been found as far north as Dog Kennel Down, c. 900m from the Icknield Way/Watling Street crossroads and just 300m north of the DA. These comprised a ditch and other possible Roman settlement activity revealed during a programme of archaeological investigations carried out in advance of the Luton Dunstable Busway (EBD1135, 1079).

There are also a number of recorded Roman find-spots comprising pottery (HER11275) and metal objects (HER 11275, 11279, 11283, 11279), such as coins and a harness mount (HER 11283, HER 17796).

### 1.3.3 Anglo-Saxon (410–1066)

The decline of Roman *Durocbrivis* is likely to have taken place during the late 4th or 5th century when Roman urban life essentially came to an end. Dunstable is not mentioned in the Domesday Survey of 1086 because it was part of the Royal Manor of Houghton Regis at this time. Evidence of Saxon activity identified so far has been restricted to the north-west part of the modern town (*e.g.* the Marina Drive cemetery, HER 152), some 1.6km from the DA, and c. 2km to the north at Puddlehill. At present, there is little evidence for continuity between the Roman and Saxon settlements.

### 1.3.4 Medieval (1066–1550)

Henry I deliberately created Dunstable (HER 16986) as a market town in the early 1100s and encouraged settlers to the area by the promise of land and privileges. The town developed around the same Icknield Way/Watling Street crossroads as Roman *Durocbrivis*.

In 1109, the king established a royal residence, known as Kingsbury (HER 148), within the town; it was probably located on the north side of Church Street, east of the crossroads. At Christmas 1131–32 Henry I founded the Augustinian Priory of St Peter (HER 131, NHLE 1004676), c. 560m to the south-east of the DA. The priory church (HER 132) still survives, surrounded by associated scheduled earthworks; Priory House (HER 6311) and the gateway (HER 6329) represent other elements of the upstanding priory remains, located within Priory Gardens.

Apart from the remains of the priory (see above), there are few other extant medieval buildings within the centre of Dunstable. One prominent example is the 15th-century Grade II listed building (HER 15496) on the north side of West Street; it originally comprised two buildings.

The DA lies outside the northern boundary of the medieval core (HER 16986), as defined in the HER. Union Street, c. 90m to the south-west of the DA, is considered to mark the northern boundary of the town that was enclosed by a ditch according to documentary sources (Albion 2003). However, the presence of a town ditch at this location is yet to be confirmed through archaeological investigation.



Buried features, such as kilns, pits and ditches, have been recorded at a number of locations in Dunstable town centre, including on: Chapel Walk (HER 11280, EBD740) and St Mary's Street (HER 11273, 17723/EBD742, 746), c. 500m south of the DA; either side of High Street North (HER 14964/EBD727 and HER16077/EBD720), c. 300m south-west of the DA; and HER 15212/EBD1262, c. 200m south-east of the DA. The faint remains of a medieval building (HER 16101) have also been identified at Blacksmiths Court, Mathew Street, c. 300m to the south of the DA.

In the second half of the 12th century a cross (HER 134) was erected at the crossroads to commemorate Queen Eleanor, whose body was carried along this route to London, but it has since been demolished.

### 1.3.5 Post-medieval (1550–1900)

Dunstable's position on the A5 (Watling Street) meant that from the medieval period it prospered as a stopping point for coaches on the way from London to the north-west. From the 17th century onwards many coaching inns were constructed along High Street North and High Street South. A number of Inns and hotels still exist along the High Street and West Street and are now designated Grade II listed buildings, e.g. the Old Sugar Loaf Inn (HER 6255) and the Plume of Feathers (HER 6312).

One of the earliest plans of the town dates to 1762 and shows that it was relatively small at that time. By the beginning of the 19th century it had a population of only 1,296 people. The majority of the extant Grade II listed and undesignated buildings along the four main roads are of 18th–19th-century date. A number of undesignated buildings, recorded in the HER, also line the roads to the west of High Street North, such as Edward Street and Albion Street.

The most relevant heritage asset to the DA is the Grade II listed Dunstable Grammar School (HER 6323) that later became Ashton Middle School. The school was established between 1887 and 1894 by E.R. Robson; it officially took on its middle school name and status in 1973. In 2014, Central Bedfordshire Council took the decision to close Ashton Middle School and two other Dunstable middle schools.

The list description of the main school building is as follows:

*Free Tudor style. Built of red brick with stone dressings, tile-hanging and red tiled roof. Above the entrance is an octagonal tower surmounted by an octagonal bell turret. To left of entrance is hall with large mullion and transom windows and central octagonal fleche on roof. To right of entrance is 2 storey wing, ground floor of brick and stone, first floor tile-hung. Timber framed dormer.*

A number of other school buildings, e.g. the gymnasium and the science block, within the school grounds are curtilage-listed by dint of their association with the former grammar school.



Prior to construction of the school, a gasworks (HER 4342) occupied part of the site (until 1838); a disused gasometer is shown on the first edition 25-inch OS map. The map also shows that the bulk of the DA lay within Dunstable Park and was crossed by at least one tree-lined boundary. A footpath known as Dog Kennel Path is shown on the map and came to mark the eastern boundary of the school site.

The arrival of the railway in 1848 led to huge expansion of the town, particularly around the London and North-Western Station, but it also resulted in the rapid decline of the coaching industry. Towards the end of the 19th century the straw hat industry became one of the town's principal businesses. In many cases the factories took over redundant coaching inns and a number are known along High Street South, *e.g.* the Waggon and Horses (HER 6264), a public house with 19th-century origins at 183 High Street South.

### **1.3.6 Modern (1900-present day)**

A number of modern designated and undesignated buildings are recorded in the HER and comprise public buildings, such as cinemas (HER 15790), fire stations (HER15632, 20220) and the site of an old post office (HER 1673).

The largest category of public buildings is religious houses, situated on West Street (HER 13540), High Street North (HER 13541) and Waterlow Road (HER 15553). A Grade II listed Methodist Church (HER 724/1/10000) and associated churchyard (HER 9008) also survives on the west side of High Street South.

### **1.3.7 Modern (WWII air raid shelters)**

A comprehensive background to the air raid shelters at Dunstable School is given in the brief for the archaeological works (CBC 2016). This is reproduced below.

Dunstable Grammar School reputedly had more than one shelter, which were constructed at the beginning of WWII and had the capacity to house all the School's pupils.

The threat to the civilian population during times of conflict was first highlighted during WWI, after London was bombed in 1917. In 1937, with a second European war becoming more likely the Air Raid Precautions (ARP) Act was passed. The Act meant that local government had to provide shelter and take precautions against gas attacks. After the Munich crisis in 1938, the Government took a more centralised approach and this led to personalised gas masks and domestic air raid shelters. By September 1939 over 1,500,000 Anderson shelters had been issued to households with an annual income of less than £250 per year. Initially large public shelters were not considered to be either cost-effective or particularly safe — in the latter case because of a higher casualty rate if one received a direct hit.

By 1940/41 public air raid shelters were more commonplace and they tended either to be of a 'trench' design or single-storey 'surface shelters'. Trench shelters varied in size and complexity but all essentially comprised a dug and revetted trench. Materials used in the revetment included sandbags, earth, corrugated steel sheeting, stone, brick and timber hurdles or planking. After 1939 covered trench shelters that used prefabricated concrete and steel to provide walls and ceilings were introduced, all of which would be covered with spoil that had been excavated from the original trench.



The use of concrete and steel meant that the lengths and plans of the shelters could be easily varied.

Extracts from the proceedings of the Borough Council in Dunstable record the measures taken in the town to provide civil defence. These included erecting baffle walls, strengthening private basements, completing trench shelters and delivering indoor shelters to those who were eligible. Public trench shelters were constructed at Bennett Memorial Recreation Ground, Half Moon Lane, Northfields Recreation Ground, Luton Road (2) and Grove House Gardens. In 2003, the public air raid shelter in Grove House Gardens was re-discovered during an archaeological trial trench evaluation. Subsequent excavation demonstrated that it was 24m long by 9.5m wide and comprised four adjoining corridors with an entrance corridor to the south-west. The shelter had been constructed from pre-fabricated reinforced concrete and as well as the entrance had two emergency exits and two ventilation holes. Traces of the wooden benches and toilet facilities were also found within the interior.

In 1940, children started to return to their homes after being evacuated at the start of the war, and this led many schools to build their own shelters to accommodate their pupils. Luton's industrial heartland was targeted during the Second World War, with the airport, the Vauxhall Works and the Park Street bus depot all sustaining serious damage. Dunstable's proximity to Luton meant a very real threat from both collateral and intentional damage. Trench-type school air raid shelters are known to have existed in a number of locations in the towns of Bedfordshire and one of the most complete was excavated and recorded at Beechwood School in Luton in November 2009.

The exact nature and number of air raid shelters constructed at Dunstable Grammar School is not known. A number of former pupils recall that the shelters were constructed in the open space behind the main school buildings, under the School rifle ranges and that they were capable of housing all the pupils and those from Ashton Lodge Preparatory School.

One of the most complete recollections of the shelters was given by Harold R Perkins to the 'Dunstable and District at War Project' and is reproduced below: "*At the Dunstable Grammar School there was a grassy area behind the swimming pool. Normally it was used by the boarders for ad hoc games and included the firing range for the rifle butts at the back. At the beginning of the war air-raid shelters were built there. They consisted of underground corridors cut in the chalk and covered with mounds of spoil. If the air-raid warning sounded, which it did over frequently in the very early days of the war, we all trooped out from the classrooms and into the shelters, where we sat on long wooden benches. There we were supposed to continue our lessons, but really not much work was done. Of course, we were all obliged to carry our gas masks at all times (there were penalties for being without). Mine was in a tin canister with a screw lid. It survived the war*".

Other former pupils have similar memories of the air raid shelters.

A photograph of the Dunstable Grammar School Army Cadets taken in 1941 (Plate 10) shows what may be three surface entrances to the shelters located in the school playing fields at the rear of the site.



### **1.3.8 Previous archaeological investigations within the DA**

In April 2006, an archaeological watching brief (EBD 70) was undertaken during groundworks associated with the construction of a new extension at the school (Northamptonshire Archaeology 2006). A truncated natural substratum was revealed across the entire development area. However, no archaeological deposits were revealed and no artefacts were recovered.

A trial trench evaluation of the DA was undertaken in August 2016 (Albion 2016; Figure 2). The investigations revealed archaeological features in four of the six evaluation trenches. All the features are likely to date to the 19th or 20th centuries. No evidence for Roman or medieval occupation was found.

Three elements of probably the same modern feature were revealed in Trenches 1 and 6 in the north of the DA. Two of them were on a NW-SE alignment and probably formed a right-angled structure with another one on a NE-SW alignment. They had near vertical profiles and contained two parallel lines of reinforced concrete slabs that were *c.* 1.5m apart. Conversations with the former school caretaker, trustees and local residents indicated that at least one WWII air-raid shelter, but possibly more, were located in this part of the school.

## **2. AIMS AND OBJECTIVES**

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### **2.1 Fieldwork Data Collection Aims**

The primary objective of the archaeological investigation works was to determine and understand the nature, function and character of any archaeological remains in their cultural and environmental setting.

Overall, the data collected during the fieldwork determined the following:

1. the date, nature and extent of any activity or occupation within the DA;
2. the relationship of any remains found to the surrounding contemporary landscapes;
3. the local environmental conditions (through the recovery of palaeo-environmental remains).

### **2.2 Project Research Objectives**

The evaluation of the DA suggested that it was unlikely to contain remains pre-dating the post-medieval period.

The most prominent heritage asset revealed by the evaluation was the WWII air raid shelter associated with the school and it was known from contemporary oral evidence that the remains of other shelters might survive within the school grounds.

Heritage assets dating to WWII are usually discussed in connection with research aims and guidelines relating to military sites and war memorials. However, the *Framework for the Eastern Counties* states that: “in the 20th century, total war defence planning was carried down to street level. More work is required to identify and record, e.g. emergency planning centres, food stores and civil defence centres.” (Medlycott 2011, 80).

Similarly, civilian air raid shelters would fall under the research aim of generally recording more of the structural fabric of the 19th- and 20th-century urban environment and the economic and social influences on their construction (Medlycott 2011, 79–80; Brown and Glazebrook 2000, 33; Oake 2007, 15) .

### 3. METHODOLOGY

The methodological approach to the project is summarised below. A full methodology is provided in the SHARM (Albion 2016).

#### 3.1 Methodological Standards

The standards and requirements set out in the following documents were adhered to throughout the project:

Albion Archaeology	<i>Procedures Manual: Volume 1 Fieldwork</i> , 3rd edition (2017)
CIfA	<i>Charter and By-law; Code of Conduct</i> (2014)
	<i>Standard and guidance for archaeological excavation</i> (2014)
	<i>Standard and guidance for the collection, documentation, conservation and research of archaeological materials</i> (2014)
EAA	<i>Management of Research Projects in the Historic Environment PPN3: Archaeological Excavation</i> (2015)
Historic England	<i>Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation</i> , 2nd edition (2011)
Luton Culture	<i>Procedures for preparing archaeological archives for deposition with Luton Culture</i> (2013)

The project archive will be deposited at Luton Culture (Entry Number LTNMG 1251). Details of the project and its findings will be submitted to the OASIS database (reference no.: albionar1-252912) in accordance with the guidelines issued by Historic England and the Archaeology Data Service.

#### 3.2 Archaeological Investigation

A strip, map and sample investigation was undertaken between 24th January and 8th February 2017, within the playing fields and all-weather sports pitch on the northern edge of the DA (Figure 1).

The strip was carried out by a mechanical excavator fitted with a flat-edged bucket, operated by an experienced driver under close archaeological supervision. All excavation and recording was carried out by experienced Albion staff with internal specialists also consulted. Any potential archaeological features were investigated by hand and recorded using Albion Archaeology's *pro formae* sheets. The features were subsequently drawn and photographed as appropriate.

## 4. RESULTS

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### 4.1 Introduction

All significant deposits and features revealed within the stripped area are described below by chronological period and shown on Figures 2–5 and Plates 1–10. Context numbers in square brackets refer to the cuts [\*\*\*] and round brackets to fills or layers (\*\*\*). Features which have multiple excavated segments have been given a general number to aid description — denoted with a ‘G’ preceding the context number.

The investigations were focussed on the all-weather sports pitch and the playing fields to the north-east of the former Ashton Middle School. The entirety of the playing field component was reduced to subsoil level, where archaeological remains were reached. Within the all-weather sports pitch, a small area measuring 22m<sup>2</sup> was reduced to the subsoil level, and the remainder was reduced to the natural geological stratum (Figure 2).

### 4.2 All-weather Sports Pitch Area

#### 4.2.1 Overburden and geological strata

Within the all-weather sports pitch, an area of c. 500m<sup>2</sup> was excavated to the natural geology (1003), with the overburden consisting of a rubble construction make-up layer (1004) and subsoil (1002). The remainder of the all-weather sports pitch was excavated to the subsoil level as with the playing fields area.

Undisturbed geological strata (1003) was only revealed within the all-weather sports pitch area, and consisted of brown-white to white chalk. The archaeological features were clearly visible cutting this layer.

#### 4.2.2 Late medieval/post-medieval features (1400–1750)

A number of ditches and a post hole were identified within the all-weather sports pitch excavation, cutting geological strata (Figures 2–4). Pottery and tile dated the features as contemporary and of late medieval/post-medieval date.

Two similar ditches were recorded on the south-west edge of the area. Ditch [1012] (Plate 1) was orientated NE-SW and terminated c. 2.5m into the excavation area. It was c. 1.15m wide. Ditch [1014] was orientated NW-SE; it was c. 5.5m long and c. 1m wide. These features may be evidence of the rear boundary of a burgage plot that would have faced onto Watling Street, now the A5. Both ditches contained a mid-brown-grey chalky silt. Ditch [1012] produced fragments of peg tile and a small amount of transitional late medieval / post-medieval pottery.

Post hole [1016] was located c. 1m north-east of ditch [1014]. It was c. 0.4m in diameter and c. 0.1m deep. It had vertical sides and a flat base. Its brown-grey clay-silt fill produced no finds but it was comparable to the nearby ditches, with which the post hole is probably contemporary.

Spanning this area was series of curvilinear ditches, which ran from the south-west to the north-east. The two distinct ditches G[1071] and G[1075] were V-shaped in profile and steep-sided (Plate 2). They were c. 0.1–0.5m wide and up to 0.49m deep.



Superficially, the ditches have the appearance of a trackway or, in the case of the shallower features, wheel ruts. However, ditch G[1071] truncated ditch G[1075] at the south-western edge of the area. The later ditch probably represents the redefinition of an earlier, more substantial boundary. Alternatively, the features may represent the course of an (un-ditched) trackway.

The partial remains of a third possible ditch G[1073] were recorded between the two better-preserved ditches. Ditch G[1073] was very shallow and had a U-shaped profile. At most it was 0.45m wide and 0.04m deep. The finds assemblage comprised two late medieval horseshoe nails and a small quantity of late medieval pottery and roof tile fragments (excavated segment [1027]).

Ditch G[1077] was aligned NE-SW and terminated close to ditch G[1075] (Plate 3). It was *c.* 0.5m wide and *c.* 0.05m deep, with a U-shaped profile. It produced late medieval / post-medieval CBM and is likely to be broadly contemporary with the other linear features in this area.

#### **4.2.3 Modern features (1900–present day)**

The initial strip of the all-weather sports pitch consisted of the removal of a modern make-up construction layer. This revealed the subsoil layer (1002). The area of the all-weather sports pitch which revealed a WWII air raid shelter was left at the subsoil level (Figures 2 and 5, and Plate 5).

Unexcavated feature [1065] in the north-western part of the all-weather sports pitch consisted of an oval cut, which measured *c.* 12m by *c.* 8m. It had two visible fills at the surface (1066), (1067), (Figure 4). The cut was visible within subsoil (1002) and within the geological stratum (1003). Fill (1066) was a friable dark grey-brown clay-silt; fill (1067) was a firm grey-white chalk material. Surface finds included early 20th-century CBM and pottery, along with occasional metal finds. Though its use is unknown, feature [1065] may have been a practice gun emplacement, associated with the school's military training during the 1940s, and constructed from earth removed from the air raid shelter construction. Its depth is unknown. It was surrounded by a rectilinear ditch G[1069], which measured *c.* 15.5m x *c.* 13.5m. This also contained 20th-century pottery and is almost certainly part of the same phase of activity.

The excavation revealed the north-western extent of air raid shelter G[1056], including a northern stairwell entrance [1039] (Figure 5, Plate 9). It comprised an angular U-shaped cut with vertical sides and a flat base, measuring *c.* 1.4m wide and *c.* 2.35m deep. Within the cut was a reinforced, poured concrete staircase and walls (1040), which had been shuttered with corrugated iron on the outside. The stairwell had been partially truncated along the southern side by a drainage pipe associated with the all-weather sports pitch.

Thirteen stairs were observed, measuring 0.92m wide, 0.22m long and 0.18m deep. At the base, the stairs were integrated with the poured concrete floor. The poured concrete floor extended beyond the limit of the machined segment, whereas the walls extended *c.* 0.4m from the base of the staircase. At this point pre-fabricated wall panels become the main structural element. The prefabricated wall panels were concrete slabs with a tongue-and-groove-style ridge around the exterior, allowing them to lock together and also lock with the roofing structure when that had been

present. No roof survived at this point and it appears to have been broken or removed. The wall slabs measured 2m long, 0.3m wide and 0.07m deep. The stair well was fully, but loosely backfilled with a brown-grey-clay silt G(1060). Upon excavation numerous fragments of CBM, concrete and early 19th-century pottery were found. A metal vent and a metal bucket were also present. These were not found *in situ* and it is unclear whether they were associated with the use of the air raid shelter.

### **4.3 Playing Field Area**

#### **4.3.1 Overburden and geological strata**

Within the playing field, an area of *c.* 460m<sup>2</sup> was excavated to subsoil level, revealing the WWII air raid shelter. Both upper topsoil (1000) and a leached buried topsoil (1001) were removed. The topsoil consisted of brown-grey clay-silt and was *c.* 0.3m thick. It was consistently observed across the area, most likely due to levelling of the playing fields. The buried topsoil consisted of grey clay-silt; it was *c.* 0.2m thick. The orange-brown clay silt subsoil (1002) was not excavated.

#### **4.3.2 Modern features (1900-present day)**

Removal of the topsoil and buried topsoil revealed the top of a rectilinear air raid shelter G[1056] (Figures 2 and 5). It consisted of a main NW-SE corridor, which was *c.* 16m long and from which three corridors extended to the south-west; each was *c.* 14m long. The central and northernmost corridors were connected by a second NW-SE corridor, which was *c.* 5.5m long, to create a rectangular shape. The corridors were *c.* 1.5–1.8m wide.

At the southern corner was a staircase [1042] (Plates 7 and 8). Similar to staircase [1039], it comprised a poured concrete structure, shuttered with corrugated iron. From the point at which prefabricated panels replaced the poured concrete walls, a number of the roof panels were still *in situ* and a void was visible underneath. The roof slabs had grooves in order to lock in with the wall panels, identical to [1039]; they were *c.* 1.7m long, *c.* 0.3m wide and 0.07m deep. It is mostly likely that the same roof construction would have been used throughout the shelter.

In addition to the northern staircase excavation, four machine-excavated segments were dug through the air raid shelter within the playing field area: [1018], [1042], [1048] and [1052]. The first was a clear cross-section of the main NW-SE corridor [1018], dug with the aim of understanding the construction of the shelter (Figure 5, Plate 6). This location was decided upon as concrete panels, presumed to be the walls, were visible on the surface and thought to be mostly intact. The machine-excavated segment was 2.2m long. As with [1039], measurements of this segment were taken from the surface. The construction comprised a vertical-sided, flat-bottomed cut [1018] that was 1.8m wide and 2.2m deep and most probably hand-dug. On the base was a deposit of yellow-orange sand (1019), which was *c.* 1.6m wide and *c.* 0.1m thick. Sealing (1019) was a poured concrete floor surface (1020), which was *c.* 1.6m wide and *c.* 0.1m thick. It appeared horizontal within the section, although most probably had a slight gradient to allow water run-off. The construction of the wall panels (1021) was similar to those in segment [1039].

Evidence of the systematic backfilling of the air raid shelter can be seen within this section. Fill (1023) was *c.* 1.23m thick and comprised firm brown-grey clay-silt with a number of horizontal light grey-white chalk lenses. These lenses were *c.* 0.05m thick and were evidence of the fill being tamped down. There was also evidence of broken prefabricated panels within the fill. The upper fill (1024) was a much looser brown-grey chalk silt, without the tamping evidence. It was 0.98m thick.

All subsequent machine-excavated segments showed the same construction technique, suggesting the air raid shelter was built to a standard design.

Segments [1042] (Plate 7), [1048] and [1052] were located at corners of the shelter and revealed that alcoves had been built into the shelter. They were 2m wide and recessed by 0.7m. Their use is unknown but may have been for emergency escape hatches, ablutions or general storage. Capping the alcoves was an oblong concrete slab with no grooved moulding. They measured 1.6m long, 0.3m wide and 0.07m thick. This reinforces the notion that these alcoves had a specific use that was different to the rest of the shelter.

## **5. CONCLUSIONS**

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The archaeological investigations revealed two distinct phases of land-use within the DA. These were visible on two separate horizons and show the changing use of the DA, relating to its significant position adjacent to Watling Street and within the former grammar school.

The excavation under the all-weather sports pitch revealed the earliest archaeological evidence, cut into the geological strata, and comprising a series of largely perpendicular late medieval / post-medieval features. Some of the ditches probably represent the rear of burgage plots, fronting onto Watling Street. Evidence of activity of this date in the north of Dunstable is limited due to modern redevelopment.

Further ditches or the possible line of a similarly dated trackway crossed this area and appeared to respect the burgage plot ditches. A further NE-SE aligned ditch probably represents a field boundary away from the main road. An isolated posthole was located just outside the burgage plots, although its use is unknown.

Revealed within the playing fields area, and part of the all-weather sports field, was a WWII air raid shelter. It was identified and fully exposed at the subsoil horizon. It was built to protect students attending the school. By early 1940 many children had returned from evacuation and with day-time air raids becoming more frequent, the Government issued guidelines, 'Air Raid Precautions in Schools', for the construction of this type of shelter.

Its design was similar to the common and simple 'E'-shaped air raid shelter but with two arms connected to make a rectilinear '9'-shape. This shape was used in order to prevent blast debris travelling around corners, protecting people elsewhere in the shelter. At the southern and northern corners, staircases were identified. These poured concrete stairs were the entrance/exits and would have also served as emergency exits. No emergency escape hatches were located, although it is likely that they were present as they are part of the prefabricated design. A contemporary photograph shows the access points surmounted by a wooden superstructure (Plate 10).

Machined-excavated segments showed that the construction of the air raid shelter was of a standard, prefabricated concrete form, slightly amended in design in order to fit the school's needs. No fixtures or fittings were identified, suggesting that the internal elements of the shelter had been removed once it had ceased to be used. The backfill of the shelter contained a number of 20th-century pottery fragments, a metal grate and a bucket. It is not clear if these had been associated with the use of the shelter. Contemporary reports describe benches running along the sides of the shelter, in line with issued guidelines, from which the students continued academic lessons.

The results of the investigation suggest that the DA does not contain archaeological remains that could contribute further to the understanding of medieval Dunstable. The discovery of the later medieval / post-medieval features and the WWII school air-raid shelter are of local / regional significance. However, other examples of similar air raid shelters in much better states of preservation have been recorded within Luton and Dunstable.

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## 7. APPENDIX: FINDS SUMMARY

The fills of nine ditches yielded a small assemblage comprising ceramic building material, pottery, iron nails and animal bone (Table 1).

Feature	Description	Fill	Date range	Finds summary
1006	Ditch	1008	Late medieval+	Ceramic roof tile (14g); iron nail; animal bone (34g)
1009	Ditch	1011	Late medieval+	Ceramic brick/roof tile (6g); iron nail x3; animal bone (14g)
1012	Ditch	1013	Late medieval+	Pottery (2g); ceramic roof tile (96g)
1014	Ditch	1015	Undated	Pottery (1g); animal bone (1g)
1025	Ditch	1026	Undated	Iron nail
1027	Ditch	1028	Late medieval+	Pottery (1g); ceramic roof tile (24g); iron shoeing nail x2
1029	Ditch	1030	Late medieval+	Ceramic brick/roof tile (28g); iron nail; iron strip fragment
1033	Ditch	1034	Post-medieval	Pottery (17g); ceramic roof tile (270g); iron nail; animal bone (8g)
1035	Ditch	1036	Late medieval+	Ceramic brick/roof tile (73g)

Table 1: Finds Summary by feature

### 7.1 Ceramics

Medieval pottery is represented by three tiny sherds (3g) collected from ditches [1012] and [1027]. The former contained two 12th–13th-century, sand-tempered coarse ware sherds (fabric type C71<sup>2</sup>); and the latter a glazed sherd of 13th–14th-century Brill-Boarstall ware (fabric C09), a fine ware import from Buckinghamshire. A sherd of post-medieval glazed earthenware (fabric P01: 17g) derived from ditch [1033], and an unidentifiable sand-tempered sherd (1g), possibly of medieval origin, from ditch [1014].

Eighteen sand-tempered pieces of flat roof tile and brick (511g) were recovered from ditches [1006], [1009], [1012], [1027], [1029], [1033] and [1035]. All are battered and highly abraded (mean fragment weight 63g) and are likely to be of later medieval or post-medieval date.

### 7.2 Iron Objects

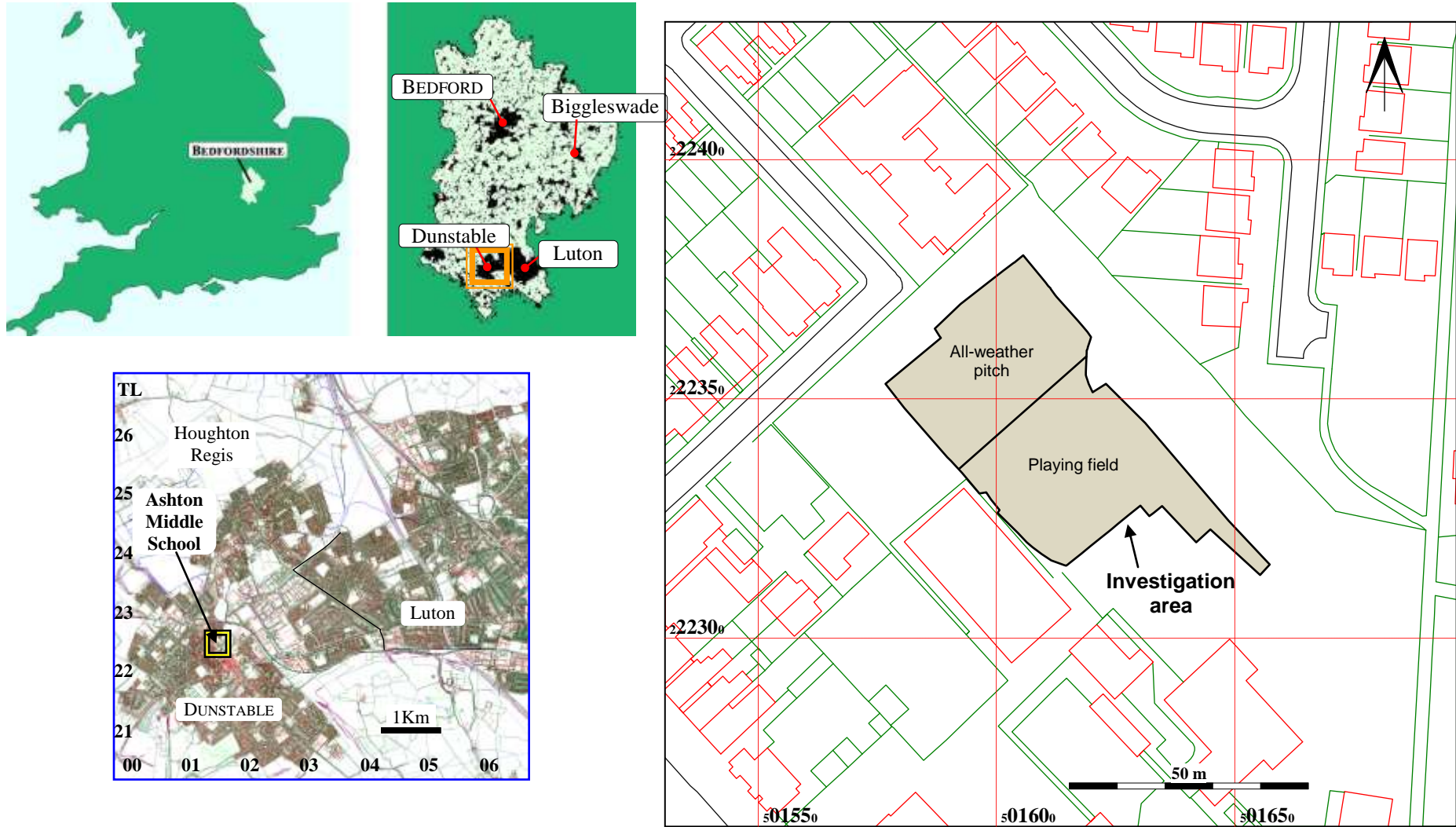
Four shoeing nails were collected from ditches [1009] and [1027]. The earliest is of ‘fiddle key’ form, datable from the 10th/11th–13th centuries; one has a head formed from an expanded shank, and is of late 13th–early 14th-century date; and two are late medieval rectangular headed types.

Undatable objects are the remains of five flat-headed timber nails and an indeterminate tapering strip fragment.

### 7.3 Animal Bone

Eight abraded pieces of animal limb bone (57g) were collected from ditches [1006], [1009], [1014] and [1033]. The remains are too fragmented to be identified to species.

<sup>2</sup> Fabric types identified in accordance with the Bedfordshire Ceramic Type Series.

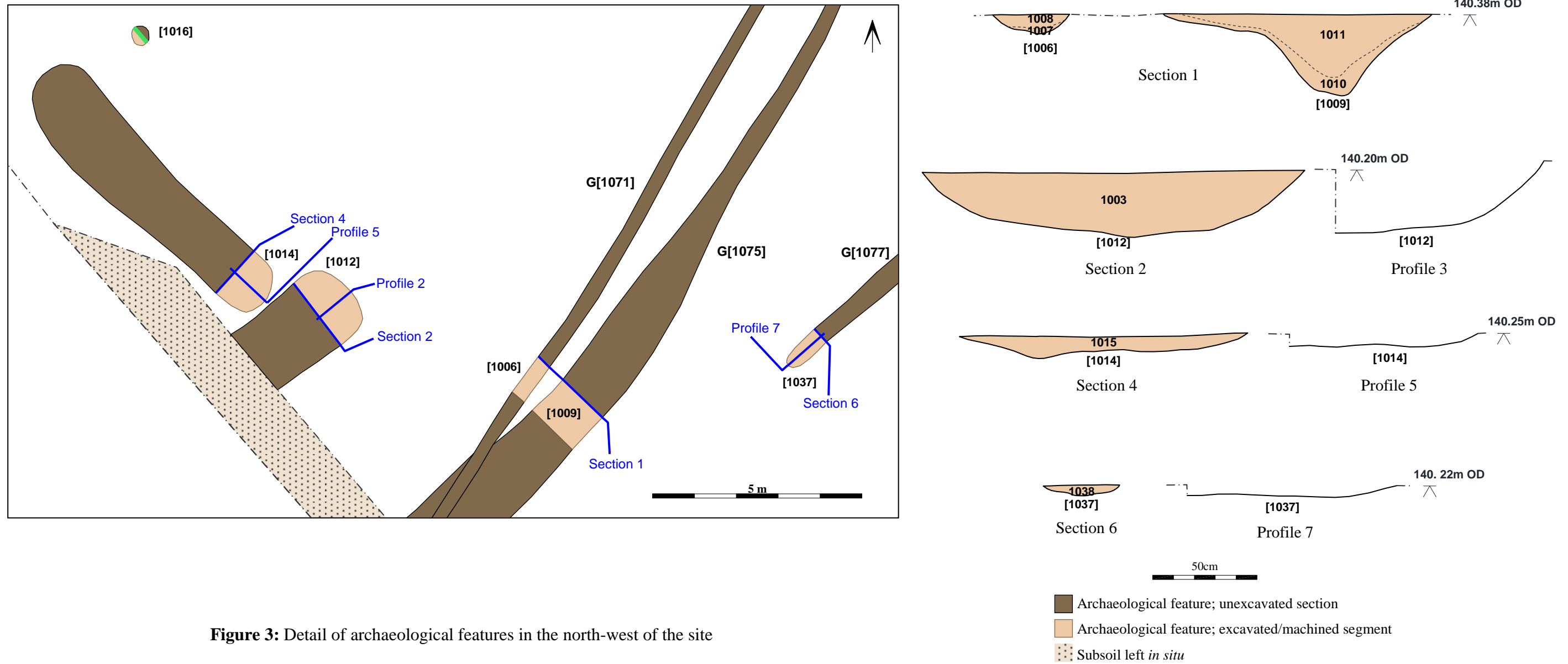


**Figure 1: Site location plan**

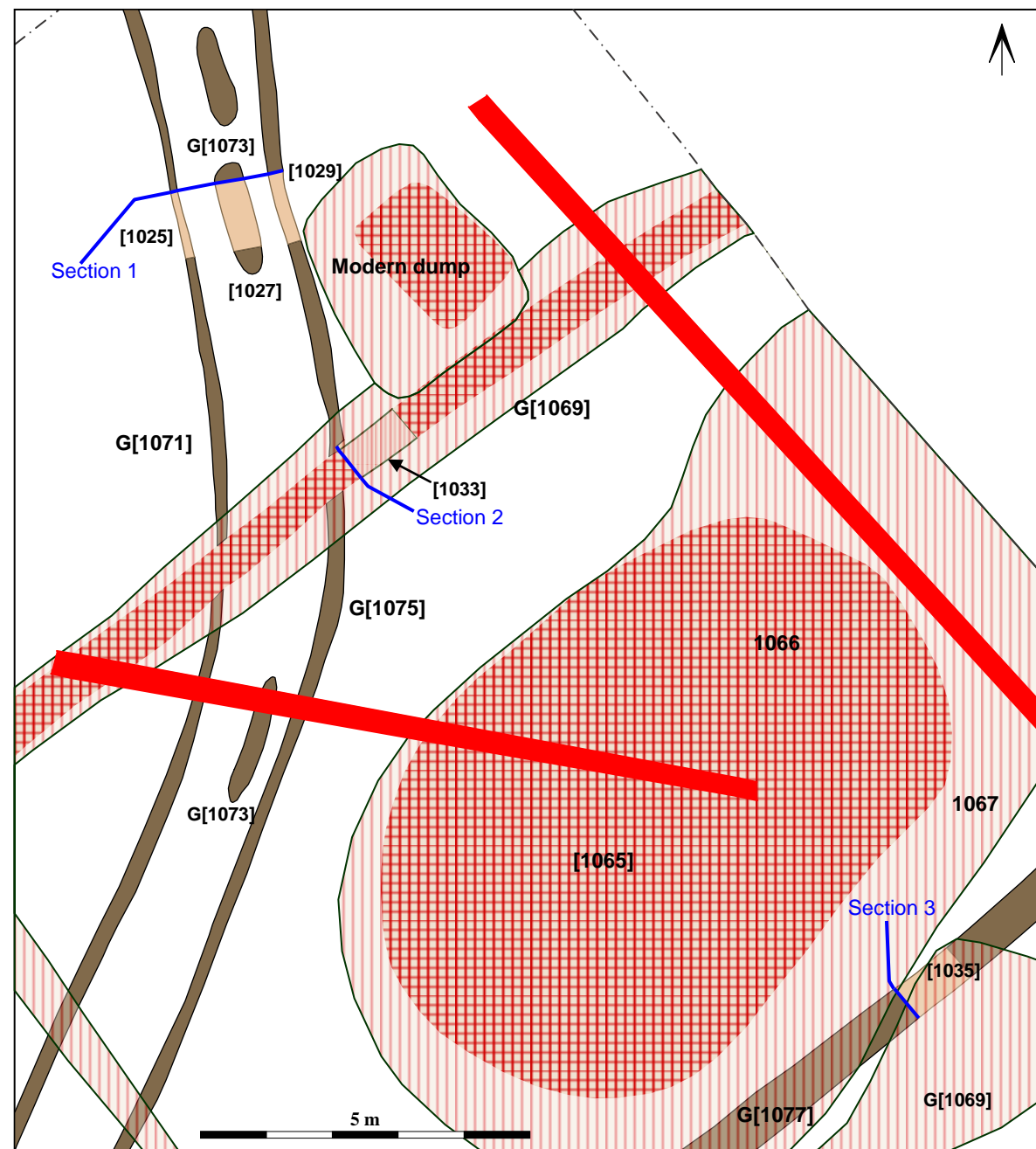
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**Figure 3:** Detail of archaeological features in the north-west of the site



- Archaeological feature; unexcavated section
- Archaeological feature; excavated/machined segment
- WWII and later features; unexcavated section
- WWII and later features; excavated/machined segment
- Concrete walls and stairs
- Concrete floor at base of segment
- Drains

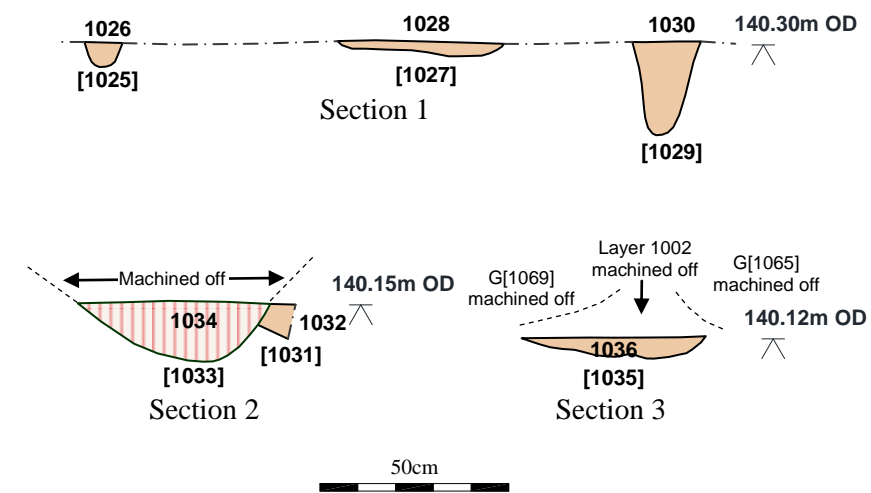
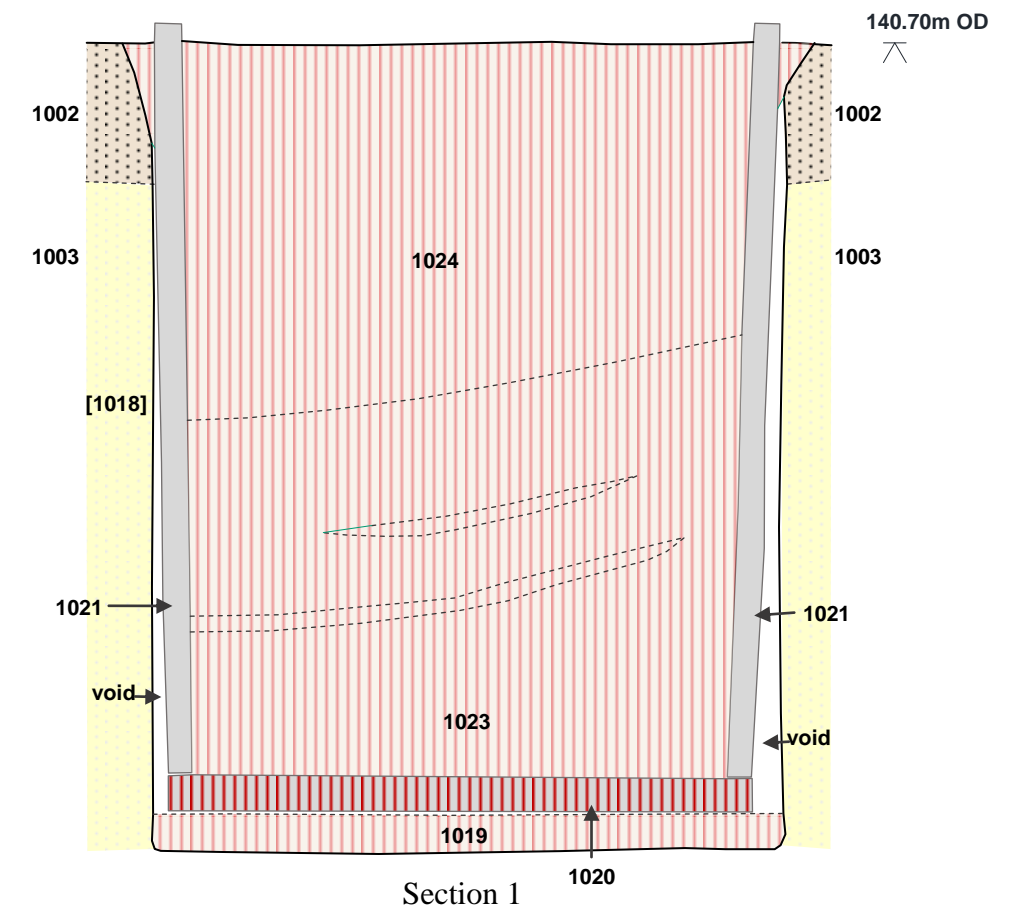
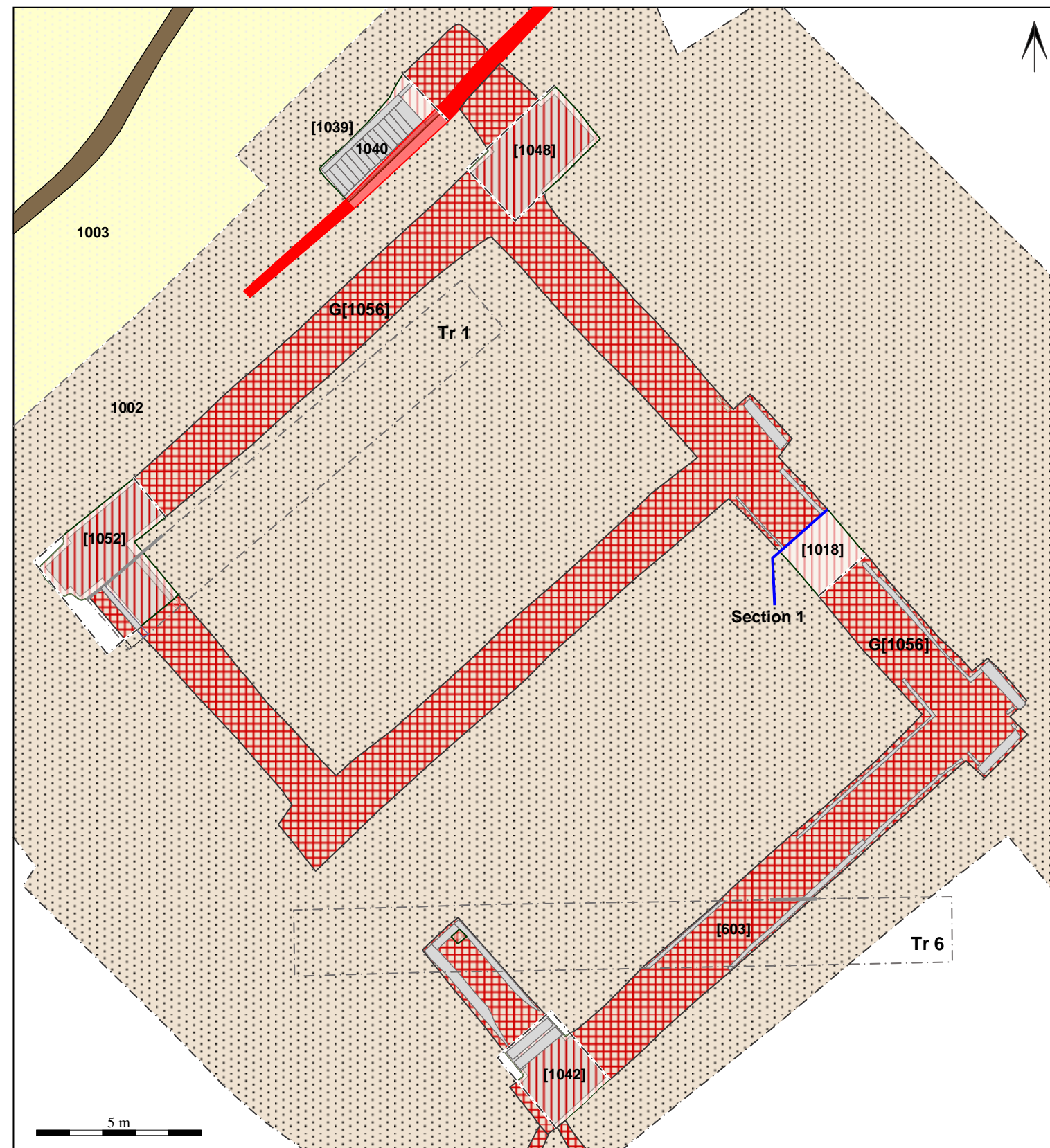


Figure 4: Detail of archaeological features in the north of the site



- Archaeological feature; unexcavated section
- Archaeological feature; excavated/machined segment
- WWII and later features; unexcavated section
- WWII and later features; excavated/machined segment
- Concrete walls and stairs
- Concrete floor at base of segment
- Drains
- Subsoil left *in situ*
- Geology

Figure 5: Detail of air raid shelter



**Plate 1:** Burgage plot boundary ditch [1012], looking south-west (1m scale)



**Plate 2:** Medieval trackway ditches [1006] and [1009], looking north-east (1m scale)

**Plate 3:** Medieval ditch [1037], looking north east (0.4m scale)



**Plate 4:** Post-excavation shot of the all-weather sports pitch, looking north-east



**Plate 5:** Extents of the air raid shelter, looking north-west (1m scale)



**Plate 6:** Machine-excavated segment through the air raid shelter [1018], looking south-east (1m scale)



**Plate 7:** Machine-excavated segment through the air raid shelter [1042], looking south-west, showing an alcove (1m scale)



**Plate 8:** Wall and roof construction of the air raid shelter [1042], looking west

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