


# Millthorpe School

---

## Archaeological Test Pits Report September 2018



<b>Site</b>	Millthorpe School, Nunthorpe Avenue, York, YO23 1PF
<b>Site Code</b>	MTS18
<b>County</b>	North Yorkshire
<b>NGR</b>	59773 50631
<b>Planning Application No</b>	18/01162/FUL
<b>Development</b>	The construction of a 3G sports pitch with associated lighting, fencing and parking.
<b>Text and Images</b>	D. Signorelli L. Signorelli
<b>Date of Issue</b>	11/09/18
<b>Site Dates</b>	Trial Trenches 13th-15th August 2018
<b>Project by</b>	
<b>Client</b>	Mr. Steve Wells
<p><b>Non Technical Summary</b></p> <p>A new sporting facility is proposed at Millthorpe School, York. It would involve the construction of a 3G sports pitch with associated lighting, fencing and parking.</p> <p>Based on the geophysical results three test pits were positioned in order to determine the absence or presence of any significant archaeological deposits. Pits 2 and 3 were located to test geophysical anomalies with Pit 1 sited where no anomalies were encountered (Lyll, 2018).</p> <p>The results of the evaluation confirmed that significant archaeological deposits were not present. The stratigraphy of the site consists of two deposits; one a dark brown 19<sup>th</sup> to 20<sup>th</sup> century layer of made up ground positioned above the natural clay deposit and the second is a layer of turf.</p> <p>The test pits also verified that the geophysical anomalies consisted of land drains and natural features.</p>	

**Contents**

1 Introduction ..... 1

2 Results..... 1

3 Conclusion ..... 6

Bibliography..... 7

Appendix 1: Written Scheme of Investigation ..... 8

**List of Figures**

Figure 1: The site and its location (streetmap.co) ..... 1

Figure 2: Site Plan showing the location of the Test Pits..... 2

Figure 3: Test Pit 1 looking North West. Field drains (Context 6, 7 and 8 cut the natural clay (Context 9)..... 3

Figure 4: Test Pit 1, south-east facing section ..... 3

Figure 5: Test Pit 2 looking west. .... 4

Figure 6: Test Pit 2, east-facing section ..... 4

Figure 8: Test Pit 3, south south-west facing section ..... 5

Figure 7: Pit 3 looking East, showing natural activity (Tree roots) cutting natural clay (Context 3) ..... 5

Figure 9: General reference map showing the site and its location (streetmap.co)..... 1

Figure 10: The site (in red) within its physical location (Google Earth)..... 4

Figure 11: Plan of the development at Millthorpe School courtesy of Steve Wells Associates..... 5

Figure 12: Geological map of area (British Geological Survey)..... 6

Figure 13: 1852 Ordnance Survey Map of South Bank ..... 7

Figure 14: 1910 Ordnance Survey Map of South Bank..... 8

Figure 15: 1950 Ordnance Survey Map of South Bank..... 9

Figure 16: The geophysical survey results with the location of the three test pits (Lyll, 2018)..... 11

Figure 17: Site Facing South East ..... 1

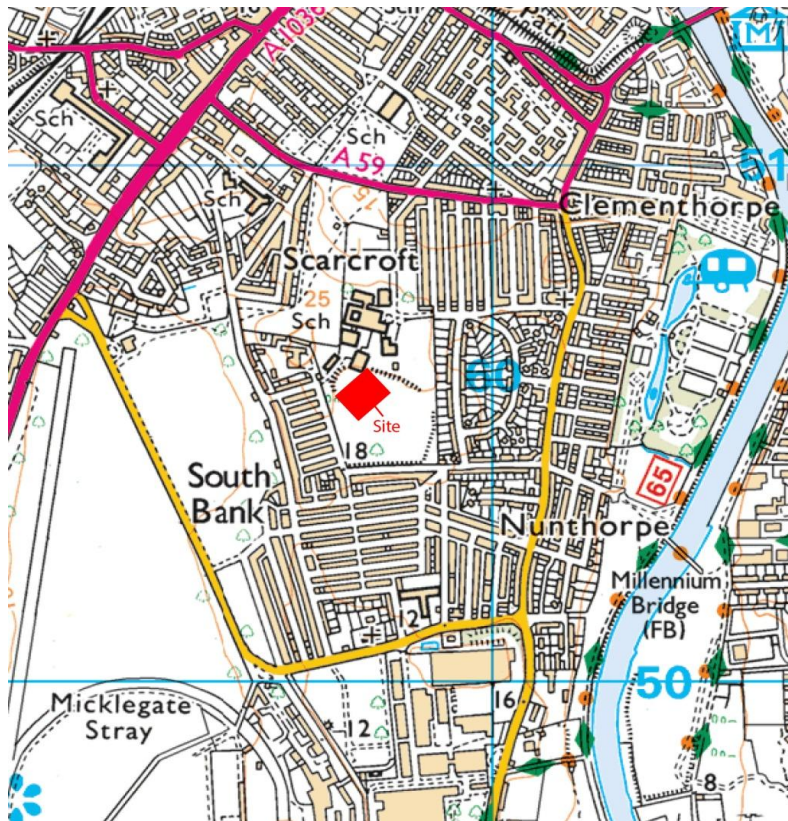
Figure 18: Site Facing West..... 1

Figure 19: Site Facing North West ..... 2

## 1 Introduction

This report summarizes the results of a programme of archaeological evaluation, which was undertaken to determine if significant archaeological deposits exist within the playing fields of Millthorpe School, York (Figure 1).

Planning has been sought to enable the construction a 3G sports pitch with associated lighting, fencing and parking. Currently this application is awaiting decision.



There was potential for significant archaeology to be present on this site. In the 1980's human burials were observed during groundwork's associated with a new school sports hall (Appendix 1).

LS Archaeology was commissioned by Mr. Steve Wells (Steve Wells Associates) to proceed with the excavation of three archaeological test pits to establish the presence or absence of significant archaeological deposits within the site.

Figure 1: The site and its location (streetmap.co)

## 2 Results

Three test pits measuring 1.5m x 1.5m, were positioned within the sports field (Figure 2). All pits were hand excavated; the turf layer was cut into small square blocks in order to be reinstated.

**The archaeology encountered consisted of 19<sup>th</sup> to 20<sup>th</sup> century field drains (contexts 6, 7, 8, 13) cutting through a redeposited 19<sup>th</sup> to 20<sup>th</sup> century layer of soil and rubble (contexts 2, 5, 11), sealed by 20<sup>th</sup> century turf (Contexts 1, 4, 10).**



Figure 2: Site Plan showing the location of the Test Pits

## Test Pit 1

Located towards the north-west boundary of the site, Test pit 1 measured 1.5m x 1.5m. It was orientated on a north-west to south-east alignment, the ground level was 18.74 AOD (Figures 3 and 4).



The removal of the top soil / turf (Context 4) measuring 0.12m in depth revealed a dark brown sandy clay deposit (context 5) mixed with fragmented CBM (Ceramic Building Material) sporadic cobbles and gravel. Fragments of glass and pottery dating to the 19<sup>th</sup> and 20<sup>th</sup> century were present within this deposit.

Figure 3: Test Pit 1 looking North West. Field drains (Context 6, 7 and 8 cut the natural clay (Context 9))

Within the limits of Test Pit 1, three field drains were identified. The most recent of these was Context 6. This drain cut into Context 5 along the northern edge of the pit. A second drain (Context 7) was visible running north-west to south-east. This drain was truncated by Context 6 and was beneath Context 7. Both these drains (Context 6 and 7) date to the 20<sup>th</sup> century and are associated with water drainage.



A third drain (Context 8) was observed, aligned north north-west to south-southeast direction. This drain was constructed of fired clay segments measuring 0.14m in diameter and 0.34m long. Context 8 dates to the end of the 19<sup>th</sup> to the early 20<sup>th</sup> century .

The natural clay deposit (Context 9) was reached at 0.35m below ground level (18.39 AOD).

Figure 4: Test Pit 1, south-east facing section

## Test Pit 2

Test Pit 2 was located towards the northern end of the site, within the area of the proposed car park. It measured 1.5mx1.5m and was orientated north to south; ground level was 19.20 AOD (Figures 5 and 6). The natural clay (Context 12) was encountered at 0.35m below ground level (18.85 AOD).

Overlaying this natural clay deposit was Context 1, a dark brown sandy silty clay. Context 11 was similar to Context 5 (recorded in Test Pit 1). A layer of turf was visible at ground level (Context 10), this was similar to Context 4 noted in Test Pit 1.



Figure 5: Test Pit 2 looking west.

Sealed under Context 11 and cutting the natural clay (Context 12) was a north to south-orientated drain, Context 13.



Figure 6: Test Pit 2, east-facing section

### Test Pit 3

Located towards the eastern end of the site, Test Pit 3 was positioned to investigate a circular anomaly detected by the geophysical survey. The pit measured 1.5m x 1.5m and was situated at 18.85 AOD (Figures 7 and 8). The natural clay (Context 3) was encountered at 0.30m below ground level (18.55 AOD).

Context 2 measured 0.08m in depth and was a thin, dark brown, silty clay deposit containing fragments of glass and CBM dating to the 20th century. Context 1, a turf layer, overlay this.



Figure 7: Pit 3 looking East, showing natural activity (Tree roots) cutting natural clay (Context 3)

The circular anomaly observed on the geophysical survey was discovered to be a natural feature, most likely a tree bole. Plough scars were visible transecting the natural clay (Context 3) on an east to west trajectory. This suggests that the area was used for agricultural purposes prior to the school being constructed.



Figure 8: Test Pit 3, south south-west facing section



### 3 Conclusion

No significant archaeological deposits were encountered during this evaluation.

All archaeological features revealed during this evaluation were field drains dated to the 19th or 20th century. No evidence of earlier periods, i.e. Romano-British or Early Medieval was encountered.

Contexts 2, 5 and 11 represent made ground, which consists of a redeposited silty sand material mixed with cobbles and fragmented CBM.

Test Pit 3 resolved the identity of the circular anomaly identified on the geophysical survey. This was a natural feature, most likely a tree bole.



September 2018

## **Bibliography**

CIfA, (2014); Standard and Guidance for an Archaeological Watching Brief.

CIfA , (2014); Standard and Guidance Appendices.

CIfA, (2014); Code of Conduct.

Lyll, J. (2018); Report on a fluxgate gradiometer survey carried out on the playing fields of Millthorpe School, York

LSArchaeology (2018); Milthorpe School, An Archaeological Written Scheme of Investigation

Macnab, N. (2002); Millthorpe School: A Report on an Archaeological Watching Brief

Stockwell, M (1984); York Archaeological Trust Note "Nunthorpe School-New Sports Hall-(SE 59755063)

## **Online Resources**

<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

[www.heritagegateway.org.uk/Gateway/Results\\_Application.aspx?resourceID=304](http://www.heritagegateway.org.uk/Gateway/Results_Application.aspx?resourceID=304)

[historicengland.org.uk/listing/the-list/](http://historicengland.org.uk/listing/the-list/)

<http://www.millthorpeschool.co.uk/millthorpe/about-us/history-of-millthorpe/>

[https://www.york.gov.uk/downloads/file/3552/area\\_72\\_scarcroft Terraces\\_and\\_southbankpdf](https://www.york.gov.uk/downloads/file/3552/area_72_scarcroft Terraces_and_southbankpdf)

**Context Data**

Feature No.	Context No.	Fill/Cut	Shape	Profile	Length(m)	Width (m)	Depth (m)	Notes	Identified As
	1	Deposit	Deposit	Layer	1.5	1.5	0.12	Very dark brown (10YR3/2) turf and sand deposit present at field ground level. Test Pit 3	Turf / Sand
	2	Deposit	Deposit	Layer	1.5	1.5	0.08	Deposit consisting of a mixture of 80% dark brown sandy clay (7.5YR3/2) material mixed with 15% of gravel, 5% cobbles and limestone rocks. 20th century glass and CBM present. Test Pit 3	Made ground for the turf layer.
	3	Deposit	Layer	N/A	1.5	1.5	0.3	Reddish brown (5YR4/3) 100% natural clay deposit. Test Pit 3	Natural
	4	Deposit	Deposit	Layer	1.5	1.5	0.2	Very dark brown (10YR3/2) turf and sand deposit present at field ground level. Test Pit 1.	Turf / Sand
	5	Deposit	Deposit	Layer	1.5	1.5	0.23	Deposit consisting of a mixture of 80% dark brown sandy clay (7.5YR3/2) material mixed with 15% gravel, and 5% of cobbles/limestone rocks. 20th century glass and CBM present. Test Pit 1.	Made ground for the turf layer.
6	6	Cut	Linear	N/A	1.5	0.2	0.35	20th century east to west orientated field drain, runs along the northern edge of Test Pit 1. Cuts drain 7. The fill consisted of fine gravel.	20th century field drain
7	7	Cut	Linear	N/A	1.1	0.3	0.35	20th century north west to south-east orientated field drain, cut by drain 6. The fill consisted of large gravel mixed with sandy silt material. Test Pit 1.	20th century field drain
8	8	Cut	Linear	N/A	1.6	0.3	0.35	19th century north north-west to south south-east orientated field drain. This drain consisted of several clay pipes each measuring 0.14m in diameter and 0.34m in length. The fill was fine black clinker material. Test Pit 1.	19th century field drain

Feature No.	Context No.	Fill/Cut	Shape	Profile	Length(m)	Width (m)	Depth (m)	Notes	Identified As
	9	Deposit	Layer	N/A	1.5	1.5	0.35	Reddish brown (5YR4/3)100% natural clay deposit in Test Pit 1.	Natural
	10	Deposit	Deposit	Layer	1.5	1.5	0.12	Very dark brown (10YR3/2) turf and sand deposit present at field ground level. Test Pit 2.	Turf / Sand
	11	Deposit	Deposit	Layer	1.5	1.5	0.2	Deposit consisting of a mixture of 80% dark brown sandy clay (7.5YR3/2) material mixed with 15% of gravel, 5% of cobbles and limestone rocks. 20th century glass and CBM present. Test Pit 2	Made ground for the turf layer.
	12	Deposit	Layer	N/A	1.5	1.5	0.35	Reddish brown (5YR4/3)100% natural clay deposit. Test Pit 2.	Natural
<b>13</b>	13	Cut	Linear	N/A	1.5	0.5	0.35	20th century east to west orientated field drain. The fill consisted of fine dark brown silty clay material (7.5YR3/2). Present on the geophysical survey. Test Pit 2.	20th century field drain

## **Appendix 1: Written Scheme of Investigation**


### **Millthorpe School**

---

### **An Archaeological Written Scheme of Investigation**

July 2018



<b>Site</b>	Millthorpe School, Nunthorpe Avenue, York, YO23 1PF
<b>Site Code</b>	MTS18
<b>County</b>	North Yorkshire
<b>Latitude</b>	53.948089
<b>Longitude</b>	-1.090376
<b>Planning Application No</b>	18/01162/FUL
<b>Development</b>	Construction of a 3G sports pitch with associated lighting, fencing and parking and creation of additional parking for Scarcroft School.
<b>Text and Images</b>	D. Signorelli L.Signorelli
<b>Date of Issue</b>	July 2018
<b>Site Dates</b>	Geophysical Survey 2nd August 2018 Trial Trenches 13th-15th August 2018
<b>Project by</b>	 LS Archaeology
<b>Client</b>	Mr. Steve Wells

### Summary

A new sporting facility is proposed at Millthorpe School, York. It would involve the construction of a 3G sports pitch with associated lighting, fencing and parking and creation of additional parking for Scarcroft School.

The planning application is currently submitted and awaiting a decision. There is potential on site for the discovery of substantial archaeological deposits including human remains although there is also the possibility that landscaping during the mid 20th century may have removed such deposits.

Two phases of preliminary archaeological evaluations are proposed to determine the likely hood of encountering significant deposits within the pitch area:

- A geophysical survey of the pitch area was undertaken on the 2nd of August 2018 (Lyll, 2018) and the results were used to suggest the location of three archaeological test pits.
- Three 1.5m x 1.5m test pits will be excavated to a depth of the natural or archaeological deposits although not exceeding a depth of 1m.

**Contents**

1	Introduction.....	1
2	The Planning Condition.....	1
3	Aims and Objectives.....	3
4	Development.....	3
5	Geology and Topography.....	6
6	Archaeological Summary.....	7
7	Mitigation Strategy and Methodology.....	11
8	Report and Dissemination.....	13
9	Archive.....	14
	Bibliography.....	15
	Appendix 1: Site Topography.....	1
	Appendix 2: Technical Information.....	3

**List of Figures**

Figure 1: General reference map showing the site and its location (streetmap.co).....	1
Figure 2: The site (in red) within its physical location (Google Earth).....	4
Figure 3: Plan of the development at Millthorpe School courtesy of Steve Wells Associates.....	5
Figure 4: Geological map of area (British Geological Survey).....	6
Figure 5: 1852 Ordnance Survey Map of South Bank.....	7
Figure 6: 1910 Ordnance Survey Map of South Bank.....	8
Figure 7: 1950 Ordnance Survey Map of South Bank.....	9
Figure 8: The geophysical survey results with the location of the three test pits (Lyll, 2018).....	11
Figure 9: Site Facing South East.....	1
Figure 10: Site Facing West.....	1
Figure 11: Site Facing North West.....	2

## 4 Introduction

A new sporting related and parking development is proposed at Millthorpe School, Nunthorpe Avenue, York (Figure 1). Planning has been sought to enable the construction a 3G sports pitch with associated lighting, fencing and parking and creation of additional parking for Scarcroft School. Currently this application is awaiting decision.

LS Archaeology has been commissioned by Mr. Steve Wells (Steve Wells Associates) to produce this Written Scheme of Investigation and undertake all archaeological ground works. This report shall act as project design with regard to the preliminary archaeological evaluations.

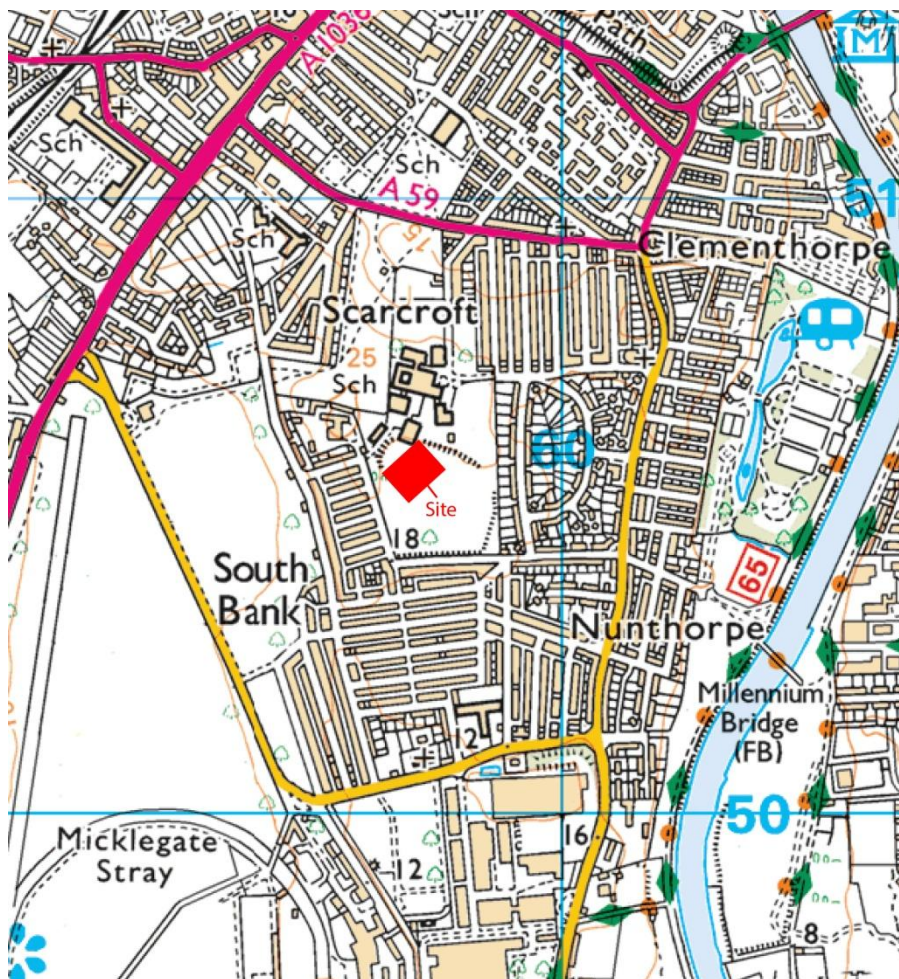


Figure 9: General reference map showing the site and its location (streetmap.co)

## 5 The Planning Condition

Planning Application 18/01162/FUL has been submitted and is awaiting a decision. Prior internal communications regarding the archaeological potential of the site between the City of York Planning and the York Heritage Officer took place in July 2018. The response, as catalogued on the York Planning Portal states:



*The school occupies an elevated position in between the river and the Knavesmire. Evidence of Roman and Civil War activity are well known on The Mount to the west and to a lesser extent on Bishopthorpe Road (Roman) to the east.*

*In 1984 a watching brief took place during the construction of the school sports hall. During the WB disarticulated burials were noted at a depth of 2.5m bgl. The date of the burials is not recorded but may be Roman.*

*The current playing fields are at a lower level than the school buildings. It is assumed that the area was landscaped for playing pitches/sports area sometime in the early 20th century when the bund which surrounds the northern edge of the playing field first appears on the map.*

*Although some degree of disturbance is anticipated within the playing fields area the groundwork's associated with this proposal has the potential to reveal or disturb archaeological deposits/features. The potential for disturbance of archaeological deposits may be heightened if the top layers of material have been removed resulting in earlier/deeper layers to be closer to the surface.*

*In the proposed area of the 3G pitches a strip, map and record program should be implemented. Should the strip reveal that the ground has been disturbed the works can be halted/monitored intermittently. The proposed car park area to the east of the school should be monitored by an archaeological watching brief.*

*Please place the following condition on any consent that is granted for this application:*

*A programme of post-determination archaeological mitigation, specifically an archaeological watching brief for the parking to the east of the site and a strip, map and record exercise on the playing fields is required on this site.*

*The archaeological scheme comprises 3 stages of work. Each stage shall be completed and approved by the Local Planning Authority before it can be discharged.*

*A) No development shall take place until a written scheme of investigation (WSI) has been submitted to and approved by the local planning authority in writing. For land that is included within the WSI, no demolition/development shall take place other than in accordance with the agreed WSI. The WSI should conform to standards set by the Chartered Institute for Archaeologists.*

*B) The site investigation and post investigation assessment shall be completed in accordance with the programme set out in the Written Scheme of Investigation approved under condition (A) and the provision made for analysis, publication and dissemination of results and archive deposition will be secured. This part of the condition shall not be discharged until these elements have been fulfilled in accordance with the programme set out in the WSI.*

*C) A copy of a report (or publication if required) shall be deposited with City of York Historic Environment Record to allow public dissemination of results within 3 months of completion or such other period as may be agreed in writing with the Local Planning Authority. This condition is imposed in accordance with Section 12 of NPPF. Reason: The site is considered to be a site of archaeological interest. Therefore, the development may affect important archaeological deposits which must be recorded prior to destruction.*

## **6 Aims and Objectives**

The aims and objectives to this Written Scheme of Investigation are:

- To evaluate and draw conclusions from prior archaeological data to enable the creation of a suitable mitigation strategy and project design.
- To outline a programme of archaeological investigations designed to investigate the potential deposits that may exist on site. The sports fields, based upon previous archaeological works at the Millthorpe school, may contain significant skeletal deposits. The aim of the preliminary archaeological works is to try to identify if such deposits are present.
- To ensure that any archaeological works required are carried out to a high standard in accordance with the Chartered Institute for Archaeologist 2014 'Code of Conduct' guidance.

## **7 Development**

Millthorpe School is a mixed secondary school located in Southbank, York. The school is located within approximately 18 acres of extensive sporting grounds, school buildings and gardens. The site (Figure 2) is bound to the south and south west by residential Victorian terraced housing, to the east by post war semi detached housing and to the north by the school grounds.



**Figure 10: The site (in red) within its physical location (Google Earth).**

The development site, as shown in red (Figure 2) indicates the submitted location of the 3G sports pitch. To the north west and north east of the pitch area are two further spaces that would be redeveloped to create additional parking; these are indicated in red in Figure 3 below.

If planning consent is approved the pitch area (Figure 3) would be archaeologically evaluated through a programme of strip, map and record. The additional parking areas shall be monitored by an archaeological watching brief. Two phases of preliminary archaeological evaluations are proposed to determine the likelihood of encountering significant deposits within the pitch area:

- A geophysical survey of the pitch area was undertaken on the 2nd of August 2018 (Appendix 1) and the results were used to suggest the location of three archaeological test pits.
- Three 1.5m x 1.5m test pits will be excavated to a depth of natural or archaeological deposits although not exceeding a depth of 1m.



Figure 11: Plan of the development at Millthorpe School courtesy of Steve Wells Associates

## 8 Geology and Topography

The site is located in an area of undulating topography with Millthorpe School being located at the highest point (MacRae, 2013) with a maximum elevation of approximately 24.5 metres AOD.

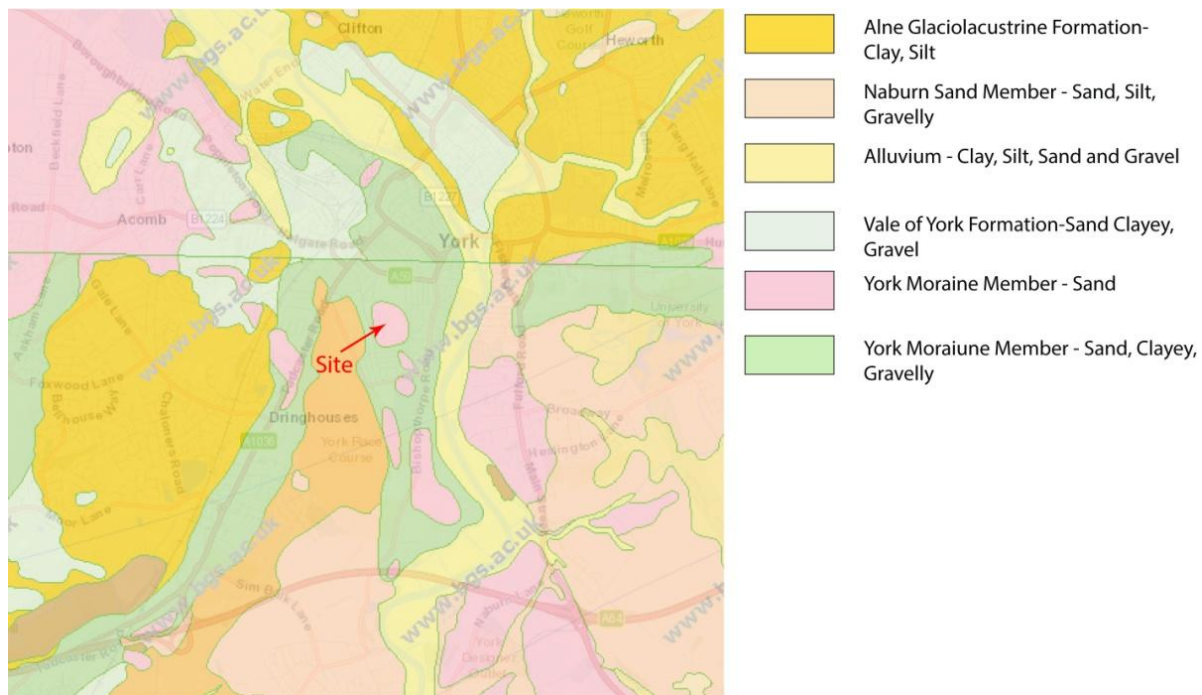


Figure 12: Geological map of area (British Geological Survey)

**1:50 000 scale bedrock geology description: Sherwood Sandstone Group - Sandstone.** Sedimentary Bedrock formed approximately 237 to 272 million years ago in the Triassic and Permian Periods. Local environment previously dominated by rivers.

**1:50 000 scale superficial deposits description: York Moraine Member - Sand.** Superficial Deposits formed up to 2 million years ago in the Quaternary Period. Local environment previously dominated by ice age conditions (U).

(<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>)

Topographic and historical evidence suggest that prior to the construction, in 1856, of Nunthorpe Court, (now the site of Millthorpe School) the land was open fields with uninterrupted views in all directions, with the highest point being located just to the west of the school buildings.

Land to the south of Millthorpe School was levelled during the mid 20th century to create extensive school sports fields; these were sunken with a sloping bund enclosing the eastern and northern edges (Appendix 1). This landscaping altered the natural topography of the site; the school premises remain at a higher elevation with the sports fields reduced to an elevation of 21.4 metres AOD. The original levels of the school fields are unknown from this search however based on current information up to 2-3 meters of the natural ground may have been removed during historical groundworks.

## 9 Archaeological Summary

The site is located just outside the boundary of York's Central Historic Core; Millfield School lies within and serves a suburban residential community.

Millfield School is located within Area 72 of the City York Historic Characterisation Project: Scarcroft Terraces and SouthBank

The characterisation project has stated with regard to archaeological potential significance:

*The Clementhorpe area immediately to the east of the Scarcroft terraces contains a possible Roman villa as well as other occupational and burial evidence. South of this character area Roman occupational and agricultural activity has been recorded in the vicinity of Bishopthorpe Road and on the Terry's factory site.*

*The South Bank and Scarcroft areas were largely agricultural in nature until the late 18th to early 19th century. Presumably archaeology relating to Roman and medieval agricultural or small scale industrial practices have been lost during later ploughing or residential development. (MacRae 2013).*



Figure 13: 1852 Ordnance Survey Map of South Bank

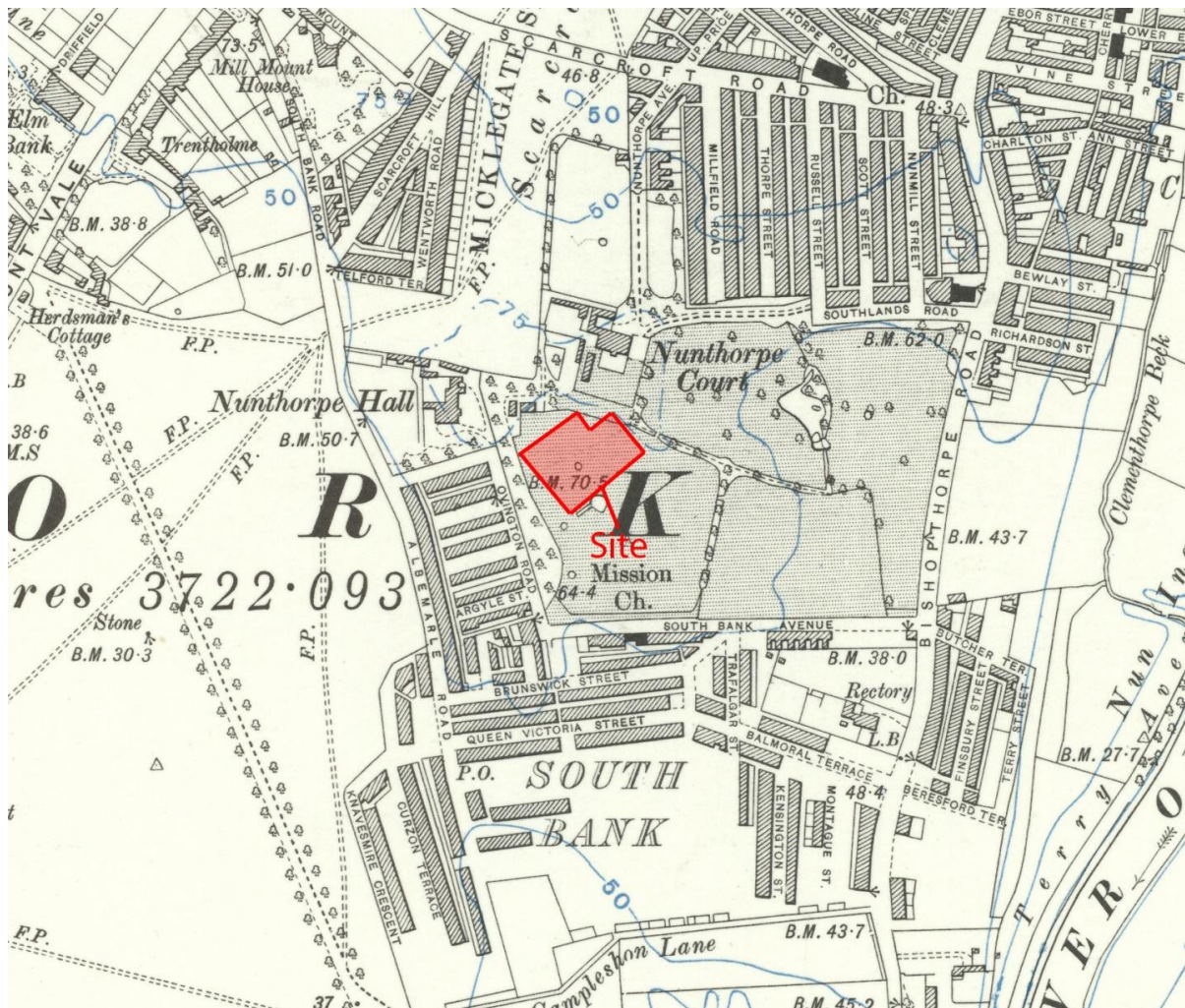


Figure 14: 1910 Ordnance Survey Map of South Bank

**Cartographic Evidence**

Map	Evidence
John Speed, 1610; <i>The West Riding of Yorkeshyre with the most famous and fayre citie Yorke described</i>	This map focuses on the walled city of York with indications of hinterland activity. To the south of the map, in the direction of the site, land use is predominantly unenclosed fields with occasional windmills.
Benedict Horsley, 1694; <i>The Iconogrphay or Ground Plot of ye City of Yorke</i>	As with Speeds map Horsley's concentrates on the city and identifies to the southern hinterland enclosed fields with occasional windmills.
John Lund Junior 1722; <i>Based on a plan of 1719 by Robert Kershaw, with 'some alterations and additions'.</i>	A map of the Micklegate Ward Stray indictaing freemen's grazing rights in common lands, meadows (ings), moors, pastures. On this map the site appears to be located in an area of enclosures known as York Fields backing onto commons to the south. Windmills are still in use and are located close to the site.
Ordnance Survey Map of York, 1852	In Figure 4, the site is shown in red; the land was still under agricultural use.

<p>Ordnance Survey Map of York, 1910</p>	<p>By the start of the 20th century the sites was incorporated into an eleven-acre estate, Nunthorpe Court. Constructed in 1856 it was the private residence of Colonel Richard Frederick and Charlotte Meysey-Thompson who kept, trained and raced horses.</p>
<p>Ordnance Survey Map of York, 1950</p>	<p>The site is now part of Nunthorpe School, a boys school, owned by the City of York Council. In 1985, Nunthorpe School (Grammar School) merged with Mill Mount School to become a comprehensive facility known as Millthorpe School.</p>

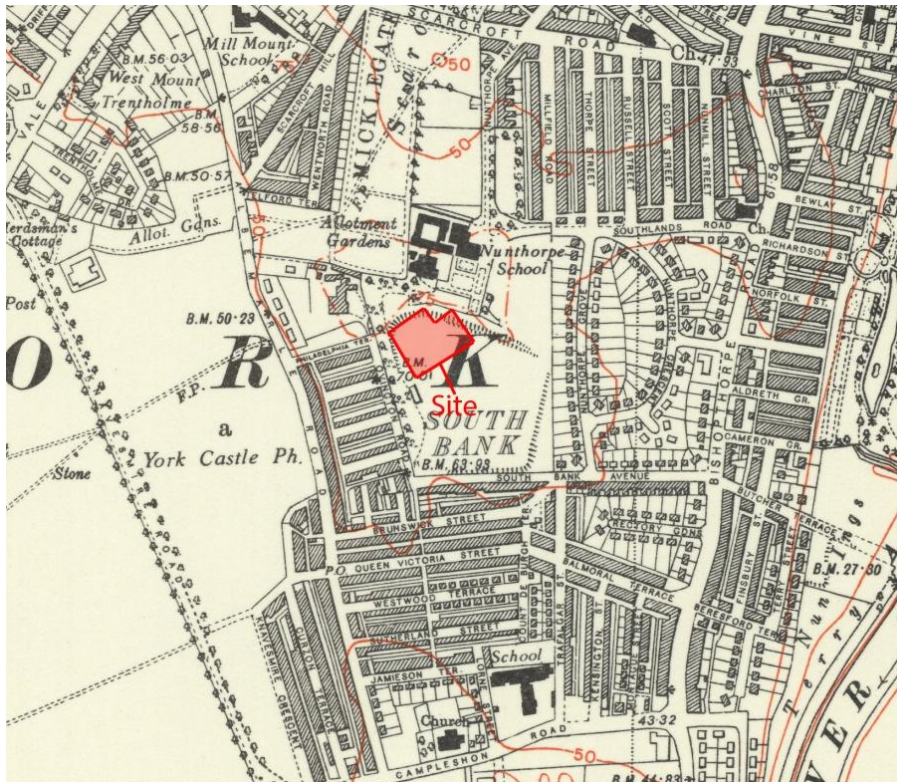


Figure 15: 1950 Ordnance Survey Map of South Bank



Previous archaeological investigations at Millthorpe School took place in 1984 (Stockwell) and 2002 (Macnab). These reports outline results observed after contractors reported chance finds and were not carried out via the planning process (archaeological condition).

<b>Intervention Details</b>	<b>Results</b>	<b>Relevance</b>
M. Stockwell, 1984 : York Archaeological Trust Note "Nunthorpe School-New Sports Hall-(SE 59755063)	Contractors undertaking work on the new sports hall uncovered human remains. Human skulls and bones found within a dark organic deposit of 3m in diameter (18.04m OD and 2.5m BGL). This was covered in sandy clay deposits similar to natural clay. The human remains were not articulated however they were intentionally placed in a line- may indicate historical disposal of disturbed remains.	Human remains may be present.  Sandy clay similar to natural clay may seal earlier deposits.  Dark organic deposits may indicate archaeology is present.  The level of these remains was 2.5m BGL.
N. Macnab, 2002 : Millthorpe School: A Report on an Archaeological Watching Brief	During groundworks a Victorian brick vault was uncovered. The works took place in the northern aspect of the school grounds. The 19th century brick vault was related to the original estate house 'Nunthorpe Court'. The vault was constructed to act as a reservoir to supply the main house with clean water.	No archaeological deposits dating prior to the 19th century were encountered/observed during the inspection of the vault.

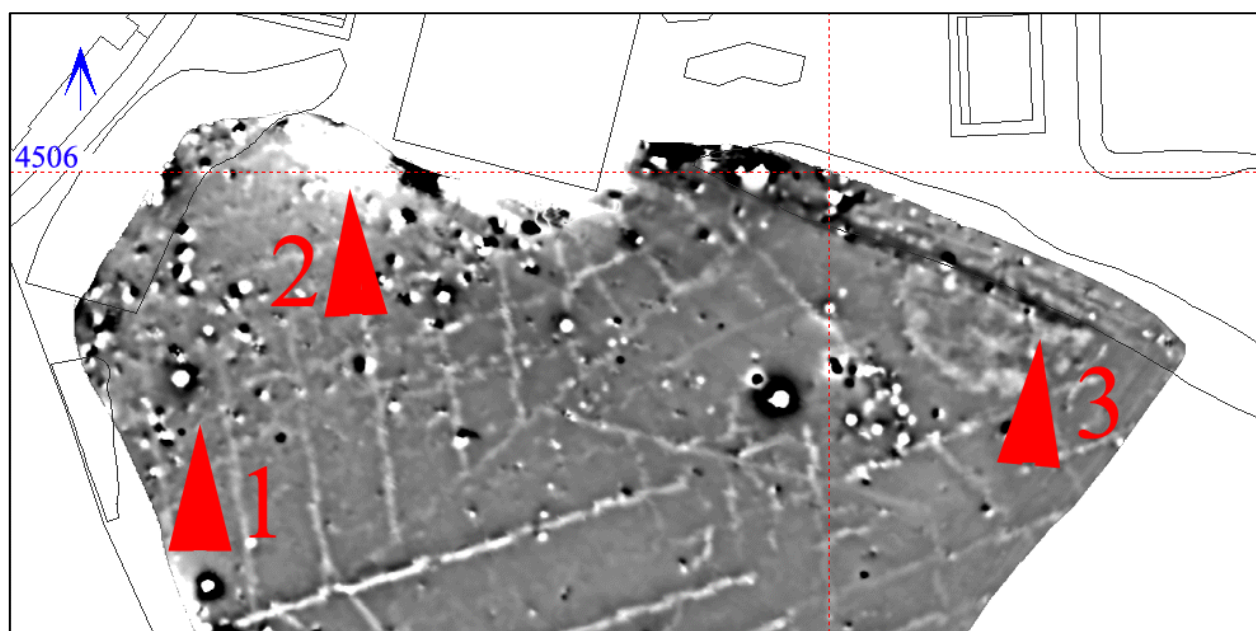
## 10 Mitigation Strategy and Methodology

### Stage 1

A programme of archaeological interventions are proposed upon the site at Millthorpe School. Two phases of preliminary archaeological evaluations are suggested to help determine the likelihood of encountering significant deposits (human remains) within the pitch area:

A geophysical survey of the pitch area was undertaken on the 2nd of August 2018 (Appendix 1) and the results were used to indicate the location of the three archaeological test pits. Three 2m x 1.5m test pits shall be excavated to a depth of the the natural or to archaeological deposits (although not exceeding a depth of 1m).

### Geophysical Results and Test Pits



**Figure 16: The geophysical survey results with the location of the three test pits (Lyll, 2018)**

**Results:** The magnetic survey was dominated by the presence of field drains, which extended across most of the surveyed area. The only anomalies of a potential archaeological origin were all located in one area of the site, just to the south of the long jump pit (Lyll, 2018).

In order to test the results from the geophysical survey, it is suggested that three test pits are excavated by hand (see Figure 8 for recommended locations). Test pit 1 is located to test an area where no anomalies were encountered. Test pit two is situated near the Sports Hall, (where disarticulated human remains were found during its construction in 1984), and test pit 3 over one of the anomalies which are of a potential archaeological nature (Lyll, 2018).

The results from the excavation of the three test pits shall be compiled into a brief interim report and submitted as part of the pre planning process. A copy of these results shall be sent to the City of York Heritage Officer.

## Stage 2

If the application for this project is successful it has been indicated that:

Strip, Map and Record Intervention should take place on the area identified for the location of the 3G pitch.

A Watching Brief takes place during the construction of additional parking and roadways.

An updated Written Scheme of Investigation, incorporating the evidence from the Stage 1 intervention results shall be submitted, for approval, to the City of York Heritage Officer, prior to any future works taking place.

Strip Map and Record Watching Brief

Specifics for the Client/Developer

The supervising archaeologist will be Luigi Signorelli from LS Archaeology. The guidelines for archaeological excavation issued by the *Chartered Institute for Archaeologists* (2014) will be adhered to throughout.

The client/developer acknowledges that it is their responsibility to fully fund all necessary archaeological work relating to their development, including all necessary fieldwork, post-excavation requirements, specialist analyses, reporting, archiving and museum deposition fees, and if necessary publication, as well as costs relating to the administration of the aforementioned.

The three test pits shall be hand dug until a level of either natural or archaeology is encountered. The depth shall not exceed 1m due to health and safety issues with regard to working in confined spaces.

Removal of the turf (to be appropriately stored on site for reinstatement)

Further hand excavation; reducing the area in horizontal spits of 10cm at a time or depths that enable changes in deposits to be recorded.

Process to continue until archaeology or natural is encountered.

Pits to be reinstated by hand.

If human remains are uncovered during the excavation of the test pits, further excavation will cease, the remains shall be photographed and recorded in situ and the test pits shall be reinstated. The Coroner shall be informed and human remains will be treated in accordance with *Guidance for best practice for treatment of human remains excavated from Christian burial grounds in England* (EH 2005).

All archaeological finds will be collected.

## Recording

A standard single context recording system will be used to keep a document record of all archaeology encountered.

If archaeology is encountered then features shall be drawn in plan to 1:20 scales on an archive stable *permatrace*.

All archaeological features and sections will be photographed as appropriate using a minimum of 10-megapixel digital colour camera.

## Post Excavation Analysis

On completion of work, all records, photographs, finds and samples will be processed, cleaned, conserved, suitably stored and catalogued, in accordance with the *Institute for Archaeologists* guidance (2008) and the *First Aid For Finds* manual (Watkinson and Neal 2001).

Finds will be subject to specialist assessment as appropriate and where statistically significant:

Pottery: Dr. Chris Cumberpatch (Post Roman) Ian Rowlandson (Prehistoric and Roman) will undertake any necessary assessment;

Human remains: York Osteoarchaeology will undertake any necessary analysis;

Flint : George Loffman of York Archaeological Trust;

Animal bone: Dr. Jane Richardson of West Yorkshire Archaeological Services.

All environmental soil analysis: John Carrot of the Palaeoecology Research Services.

Metal objects shall be x rayed by Mags Felter at York Archaeological Trust with assemblage assessment undertaken by Nicola Rogers.

Small finds: Nicola Rogers.

Ceramic Building Materials: Jane McComish of York Archaeological Trust.

All costs pertaining to this work are the responsibility of the client/developer.

Finds definable as 'treasure' in accordance with the Treasure Acts 1996 and 2003 will be reported to the local coroner. In the unlikely event that they cannot be removed on the day of exposure, suitable security will need to be arranged. All costs pertaining to this are the responsibility of the client/developer.

## 11 Report and Dissemination

An interim report will be produced within two weeks of the cessation of excavations and monitoring. In some instances, this deadline may be extended because of external specialist schedules.

Digital copies of the report shall be provided to the client/developer and John Oxley City of York Archaeologist for inclusion in the SMR (Sites and Monuments Record).

As a minimum, the interim report will include the following:

1. Summary.
2. Site Code.
3. Planning and HER/SMR refs.
4. Dates of fieldwork.
5. National Grid Reference.
6. Location plan with scale.
7. Detailed plan showing excavated/monitored areas and position of any archaeological features.
8. Section and plan photographs of archaeological deposits and features with scales and Ordnance Datum heights (where possible).
9. A written description of the methodology employed and analysis of any results
10. Specialist reports as necessary.

## **12 Archive**

The archive, excepting any items of 'treasure' and human remains, is the property of the client/developer. However, it is the expectation of the archaeological planning condition that any archive will be deposited with a suitable local museum, with full ownership transferred.

The York Museum is identified as the most suitable institution to receive any archaeological archive. *LS Archaeology* has a standing relationship with the York Museum, and it is anticipated that the museum will accept the archive, provided its terms and conditions are met.

The museum makes a charge for deposition of £50 per archive box. This cost does not include the cost of the archive boxes, as well as any necessary administration/courier costs. Charges relating to the archive shall be fully discussed with the client if such a need arises.



August 2018

## **Bibliography**

Addyman, P (ed.) (2015), *York: British Historic Towns Atlas*, vol. V.

CIfA, (2014); Standard and Guidance for an Archaeological Watching Brief.

CIfA , (2014); Standard and Guidance Appendices.

CIfA, (2014); Code of Conduct.

Lyall, J. (2018); Report on a fluxgate gradiometer survey carried out on the playing fields of Millthorpe School, York

Macnab, N. (2002); Millthorpe School: A Report on an Archaeological Watching Brief

Stockwell, M (1984); York Archaeological Trust Note "Nunthorpe School-New Sports Hall- (SE 59755063)

## **Online Resources**

<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

[www.heritagegateway.org.uk/Gateway/Results\\_Application.aspx?resourceID=304](http://www.heritagegateway.org.uk/Gateway/Results_Application.aspx?resourceID=304)

[historicengland.org.uk/listing/the-list/](http://historicengland.org.uk/listing/the-list/)

<http://www.millthorpeschool.co.uk/millthorpe/about-us/history-of-millthorpe/>

[https://www.york.gov.uk/downloads/file/3552/area\\_72\\_scarcroft Terraces\\_and\\_southbankpdf](https://www.york.gov.uk/downloads/file/3552/area_72_scarcroft Terraces_and_southbankpdf)

## Appendix 2: Site Topography



Figure 17: Site Facing South East



Figure 18: Site Facing West



**Figure 19: Site Facing North West**



**Appendix 3: Technical Information**

<b>Staffing</b>	<b>The principal archaeologist shall be Luigi Signorelli</b>
<b>Working Day</b>	Work hours are from 8:00pm until 4:00 pm with one hour in break time taken as when required.
<b>Health and Safety and Method Statemen</b>	The principal contractors own Risk Assessment should be made available to the archaeologist on site. This shall be adhered to during works. LS Archaeology prepares their own Risk Assessments specific to the nature of the excavation. First Aid: L. Signorelli
<b>Insurance</b>	Axa Insurance Policy Number : ACTRN4077078 £5 million Public Liability £1 million Professional Indemnity
<b>Use of Metal Detector</b>	Use of hand held metal detector to check spoil from any identified features.
<b>Contact Information</b>	LS Archaeology Milner's Lodge Whitwell North Yorkshire, YO60 7JJ. 07912485125 <a href="mailto:lsarchaeology@gmail.com">lsarchaeology@gmail.com</a>