UNIVERSITY OF LEICESTER
Archaeological Services

Archaeological Attendance and Recording during Groundworks at Avendue D and Avenue E Sneinton Market, Nottingham

NGR: SK 58046 3990

Leon Hunt and Andrew Hyam

ULAS Report No. 2019-074

Archaeological Attendance and Recording During Groundworks at Avenue D and Avenue E, Sneinton Market, Nottingham

NGR: SK 58046 39900

L Hunt and A R Hyam

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OASIS Information

PROJECT DETAILS	**Oasis No**	universi1- 354477		
	Project Name	Archaeological Attendance and Recording during Groundworks at Avenue D and Avenue E, Sneinton Market, Nottingham		
	Start/end dates	30.07.2018 to 31.07.2018 and 23.05.19 to 24.05.19		
	Previous/Future Work	No previous/ not known		
	Project Type	Attendance during borehole testing		
	Site Status	Public market		
	Current Land Use	Commercial market		
	Monument Type/Period	Buildings and surrounding roads. 20th century		
	Significant Finds/Period	None		
	Reason for Investigation	NPPF		
	Position in the Planning Process	Planning condition		
	Planning Ref.	17/02557/PFUL3 (PP-062523309)		
PROJECT LOCATION	**County**	Nottinghamshire		
	Site Address/Postcode	Archaeological Attendance and Recording during Groundworks at Avenue D and Avenue E, Sneinton Market, Nottingham. NG1 1DW		
	Study Area	2500m^2		
	Site Coordinates	SK 58046 39900		
	Height OD	30m aOD		
PROJECT CREATORS	**Organisation**	ULAS		
	Project Brief Originator	Nottingham City Council		
	Project Design Originator	ULAS		
	Project Manager	Vicki Score		
	Project Director/Supervisor	Leon Hunt/Andrew Hyam		
	Sponsor/Funding Body	Hilljetc Construction Limited		
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Andrew Hyam

Summary

A programme of archaeological attendance and recording during groundworks was undertaken at Avenue D and Avenue E, Sneinton Market, Nottingham in July 2018 and May 2019. The work over the two months observed the excavation of 5 test pits and 10 boreholes within an area of proposed redevelopment on the north-east side of the market. Extensive areas of made ground containing brick, tile and glass were recorded down to at least 4.5m below ground level towards the south-eastern part of the site. Natural sandstone bedrock was seen beneath the layers of made ground at around 3.5m below ground level towards the north-west of the site.

The layers of made ground may represent demolition layers from earlier developments or possibly landscaping works to create a level site for the market. No archaeological features were observed during the work.

Introduction

In accordance with National Planning Policy Framework (NPPF) Section 16 *Conserving and Enhancing the Historic Environment* this document forms the report for an Archaeological Attendance and Recording during Groundworks at Avenue D and Avenue E, Sneinton Market, Nottingham. Under planning application 17/02557/PFUL3 (PP-06523309) part of Sneinton Market will be redeveloped which will entail the partial demolition of the standing buildings and the construction of an apartment block with shops and restaurants below.

An archaeological trial trench evaluation prior to redevelopment was initially specified by the City Archaeologist but a number of site constraints and the potential for deep layers of overburden necessitated a change of approach. In July 2018 an initial series of 5 test pits and 4 boreholes were monitored by an archaeologist from the University of Leicester Archaeological Services (ULAS). This was then followed by further monitoring of 6 more boreholes in May 2019.

The site lies outside the boundary of the medieval town of Nottingham but the Historic Environment Record (HER) for Nottingham indicated that there is known medieval occupation activity in the area. There was also the potential for previously unknown cave systems to exist within the site. The site lies within a conservation area and the existing and distinctive Art Deco style gable ends of the market buildings on the site form a significant heritage asset to the locality.

The proposed redevelopment will take place within the footprint of the existing buildings but some hard landscaping will also take place within the surrounding roads. The Art Deco gables of the present buildings will be retained and incorporated into the

new scheme. The total area of the development including the buildings, the Avenues D and E and the eastern side of Freckingham Street covers approximately 2500m².

The fieldwork was undertaken in order to determine the nature, extent, depth, date and significance of any archaeological deposits which may be present. The results of the work should enable an informed decision of planning consent to be made in relation to any buried archaeology that may be affected by the proposed redevelopment.

Figure 1 Site location

Figure 2 Plan of proposed development area
Site outlined in red

Location and Geology

The proposed development is located at the north-eastern edge of Nottingham city centre, on the eastern side of Sneinton Market between Freckingham Street, to the west, and Bath Street, to the east. Parallel streets known as Avenues D and E run from south-west to north-east and divide the development area into three blocks (Figs 1 and 2).

The market is on generally level ground with only a gentle slope down towards the south. The site lies at a height of approximately 30m OD. The bedrock is of Nottingham Castle Sandstone formation with superficial deposits of Diamicton head consisting of sands, gravel and clay.

Historical and Archaeological Background

Archaeological desk-based assessments (DBAs) by ULAS (Hunt 2014 and Hyam 2016) have been undertaken for the market area and areas close by.

Prehistoric and Roman

There is little evidence for any prehistoric activity within the proposed development site although this may be due to a lack of archaeological work rather than a genuine absence of activity. Some Iron Age activity has been detected approximately 500m to the west of the site. At present there is no evidence for any Roman activity in or within the locality of the market area.

Pre-Conquest & Medieval

The desk-based assessment suggests that the site is located just beyond the north-east corner of the Saxon borough boundary. The limits of the Pre-Conquest Borough boundary ran northwards along the line of the present Parliament Street approximately 100m to the south-west of the site. A ditch encountered during an evaluation at nearby Bedford Row/Bath Street (approximately 100m away) has been dated to the 8th century. This feature was one of two linear ditches found on the site, both of which were preserved at a shallow depth despite previous development.

Two Viking period graves were identified to the north of the site in the 19th century. Unfortunately, although human remains and weapons were found the precise location is not known.

The site lies to the east of the medieval town limits but is still within an area of known medieval occupation and activity.

There are seven known caves within a 100m radius of the site leading to the possibility that there may be, as yet, unknown caves within the site. This is especially true given the nature of the underlying bedrock.

Post-Medieval

The area around the market appears to have remained relatively undeveloped into the mid-19th century when gradual urban expansion overtook the area. The site of the market appears to have remained as a partially open space until the late 1930s when slum clearance of the surrounding area took place and most of the present market buildings were constructed. The roads within the market area, known as Avenues A to E, were also laid out at this time but not built upon. The onset of the Second World War seems to have interrupted the development of the market so that the remaining market buildings were only constructed during the late 1950s. The Art Deco style would suggest that the buildings were designed and approved in the 1930s. By the time of their construction following the war their style would have been rather old fashioned.

A map regression exercise was undertaken in a Desk-Based assessment of Sneinton Market produced by ULAS in 2003 (Gnanaratnam, 2003). The current development site itself is shown as farmland on most early maps with the first map to show the market being the 1844 map. This map indicates the site as the 'New Market'. However, the area of proposed redevelopment, known as Avenues D and E are only shown for the first time on the 1954 OS map of the area.

Objectives

Within the stated project objectives shown in the ULAS Written Scheme of Investigation (WSI) for *Archaeological Attendance and Recording during Groundworks at Avenue D and Avenue E, Sneinton Market, Nottingham* (ULAS, 2019), the principal aim of the work was:

- To identify the presence/absence of any archaeological deposits.
- To establish the character, extent and date range and significance of any surviving archaeological deposits.

- To record any archaeological deposits to be affected by the ground works.
- To establish the ecofactual and environmental potential of any archaeological deposits and features encountered.
- To identify deposits and depths in order to produce a deposit model of the area.
- To record any archaeological deposits and produce an archive and report of any results.

Within the stated project objectives, the principal aim of the recording was to establish the nature, extent, date, depth, and significance of the heritage assets within their local and regional context.

Given the potential for the development of the market area, it was therefore possible to determine some initial objectives derived from *The Archaeology of the East Midlands: An Archaeological Resource Assessment and Research Agenda* (2006) and *East Midlands Heritage: An Updated Research Agenda and Strategy for the Historic Environment of the East Midlands* (2012) and Wiki (2018). These objectives are shown and discussed in greater detail in the ULAS WSI.

Methodology

All work was carried out in accordance with the Chartered Institute for Archaeologists (CIfA) Standard and Guidance for Archaeological Watching Briefs (2014b) and adhered to their Code of Conduct (2014a).

The project involved the monitoring of the excavation of test pits and boreholes across the proposed development area as shown in Figure 3 below. In July 2018 the test pits were hand-excavated down to a depth of between 0.5m and 0.77m below ground level and the boreholes driven down from ground level. The boreholes in the May 2019 programme of work were hand-excavated to a depth of 1.2m below ground level and then bored from that point downwards.

Any archaeological deposits revealed during the work would be investigated and recorded. Should significant archaeological remains be identified a programme of excavation and recording may be necessary using additional personnel as necessary. The full methodology, contingency provisions and treatment of finds is set out in the ULAS Written Scheme of Investigations (ULAS 2018).

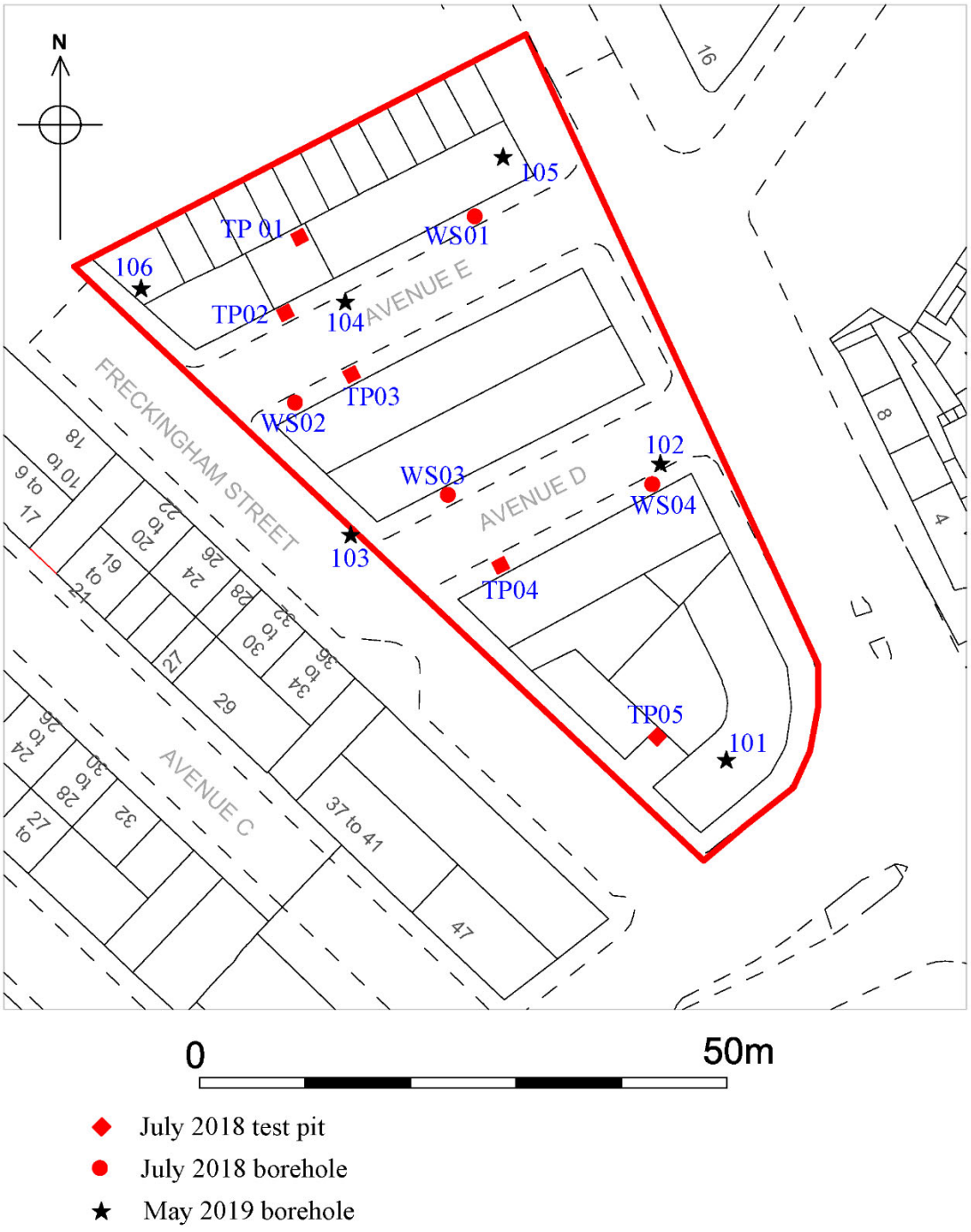

Figure 3 Test pit and borehole locations

Results

July 2018 work
Leon Hunt

A total of five test pits (TP01 to TP05) and four boreholes (WS01 to WS04) were excavated within the study area of Avenue D and Avenue E of Sneinton Market (Fig. 3).

The excavation of three of the test pits (TP02, 03 & 04) and two of the boreholes (WS03 & 04) were monitored over two days. The test pits were excavated in accessible areas within the abandoned buildings and on the pavements alongside Avenues D and E.

In places a layer of solid concrete which could not be penetrated was found and, as a consequence, these test pits were not continued (TP01 and TP05). Borehole WS02 was also abandoned for the same reason.

All observed test pits and boreholes were excavated after removing paving slabs and a thin layer of building sand. This revealed concrete (0.50m – 0.77m in thickness) over made-up ground containing sand and gravel with cobbles and brick, some of which were likely to have come from earlier street layers.

The boreholes, were between 4m to 4.5m deep, and consisted of 3-4 distinct layers of made ground. The layers all contained matrices of dark brown sandy clay and gravel all of which contained fragments of brick and concrete. Lower layers contained higher levels of sandy silt or silty clay but still contained brick, concrete and charcoal. In addition to the relatively modern materials WS04 core sample also contained fragments of tile, coal and shell plus glass down to a depth of 4.5m below ground level.

No natural sub-stratum was observed within any of the test pits or boreholes Tables 1 and 2).

	TP01	TP02	TP03	TP04	TP05
Ground Height (m OD)	**30.42**	**30.24**	**30.17**	**30**	**29.92**
Deposit	Concrete and block paving	Concrete and block paving	Concrete and block paving	Concrete and block paving	Concrete and block paving
Deposit	Stopped excavation	Made ground with modern materials	Made ground with modern materials	Made ground with modern materials	Stopped excavation
Natural or bedrock observed	No	No	No	No	No
Maximum excavated depth	0.35m	0.85m	0.90m	0.70m	0.30m

Table 1: July 2018 Test pit data

	WS01	WS02	WS03	WS04
Ground Height (m OD)	30.9	29.94	30.07	30.45
Deposit	Concrete and block paving	Concrete and block paving		
Deposit	Made ground with modern materials	Stopped excavation	Made ground with modern materials	Made ground with modern materials
Natural or bedrock observed	No	No	No	No
Maximum excavated depth	4.0m 26.9 mOD	0.25m	4.0m 26.7 mOD	4.5m 25.95 mOD

Table 2: July 2018 Borehole data

May 2019 work
Andrew Hyam

Six boreholes (101 to 106) were excavated across the proposed development site (Fig 3). At the time of this work most of the south-eastern building had been demolished and the walls, roofs and internal walls and floors had been removed from the other two buildings. The gable ends of all three buildings had been retained for incorporation into the new development.

Borehole 101
Borehole 101 was placed within the footprint of the partially demolished south-eastern building. The hand-dug top of the hole exposed a 0.5m thick layer of building and demolition rubble mixed with sandy layers. Beneath this was a layer of made ground consisting of dark brown sandy clay which gradually became lighter in hue the deeper the core sample went (Fig. 4). Fragments of brick and some glass were recovered throughout and even down to 4m below ground level.

No natural substratum or bedrock was observed in this borehole.

Borehole 102
Borehole 102 was placed at the north-eastern end of Avenue D close to the location of WS04 excavated in July 2018. A hole was bored through the 0.3m thick roadway before hand-digging through a further 0.5m of broken brick and clay. A make-up or levelling layer of relatively clean sand then continued down to 1.2m below ground level. Beneath this was a dark brown silty clay deposit with brick and glass down to the base of the borehole at 3.6m. The lower part of the core sample also had a rather organic smell to it. Following excavation water began to infill the hole and rose to a height of around 1.8m below ground level.

No natural substratum or bedrock was observed in this borehole.

Borehole 103
Borehole 103 was placed at the corner of Avenue D and Freckingham Street. A 0.3m thick layer of tarmac and concrete exposed a further 0.6m thick layer of rubble resting on a sandy clay layer. Hand digging stopped at this point and the boreholing commenced. The sandy layer was relatively thin and soon gave way to darker brown silty clay made ground with brick rubble down to 3.5m below ground level. A layer of cleaner mixed sand and silty clay then continued down to 3.8m before changing to hard compact sandy bedrock at 4m.

Borehole 104
Borehole 104 was placed in the middle of Avenue E and to the east of Test pit 02 dug in July. Cutting through the 0.3m thick roadway the deposits were very similar to those seen in Borehole 103 with bedrock being seen at 3.9m below ground level.

Borehole 105
The original location of Borehole 105 was intended to be at the northern end of Avenue E close to the location of the aborted borehole WS01. Cutting through the roadway exposed a layer of reinforced concrete which could not be pierced. The location was therefore moved to be inside the northern building which had recently had its floor removed. Demolition rubble and a layer of clean building sand was observed continuing down to 1.5m below ground level. Beneath this was a 2m thick layer of silty clay and building material which appeared to be sitting directly on top of the bedrock which was identified at 3.5m below ground level.

Borehole 106
The presence of a thick layer of concrete enforced the relocation of Borehole 106 to just inside the south-western end of the north-western building. 1.7m of building rubble and made ground was observed which gradually changed to a cleaner sand and then to bedrock at 3.5m below ground level.

No archaeological features were found during the test pitting and borehole work. All of the made ground which was encountered contained what appeared to be modern brick, glass and other similar building materials. The results do however indicate that the bedrock may be rising up towards the north and west of the site as suggested in Figure 5 below.

	101	102	103	104	105	106
Ground Height (m OD)	29.84	30.44	29.75	30.27	31.23	29.96
Deposit	Demolition rubble to 0.5m	Road surface to 0.3m	Road surface to 0.3m	Road surface to 0.3m	Demolition rubble	Demolition rubble and cobbled floor
Deposit	Made ground to base of hole	Rubble to 0.5m then clean sand to 1.2m	Made ground with brick to 3.5m	Made ground with brick to 3.5m	Clean building sand to 1.5m	Made ground to 1.7m
Deposit		Black silty clay with brick and glass frags	Mixed sand and dark silty clay to 3.8m	Mixed sand and dark silty clay to 3.9m	Made ground with brick to 3.5m	Mixed sand and dark silty clay to 3.5m
Natural or bedrock observed	No	No	Bedrock at 3.8m 25.95 mOD	Bedrock at 3.9m 26.37 mOD	Bedrock at 3.5m 27.73 mOD	Bedrock at 3.5m 26.46mOD
Maximum excavated depth	4.2m 25.64 mOD	3.6m 26.84 mOD	4m 25.75 mOD	4m 26.27 mOD	3.5m 27.73 mOD	3.5m 26.46 mOD

Table 3 May 2019 Borehole data

Figure 4 Core samples from Borehole 101
1 metre long tubes. Highest level at top left, deepest sample bottom right

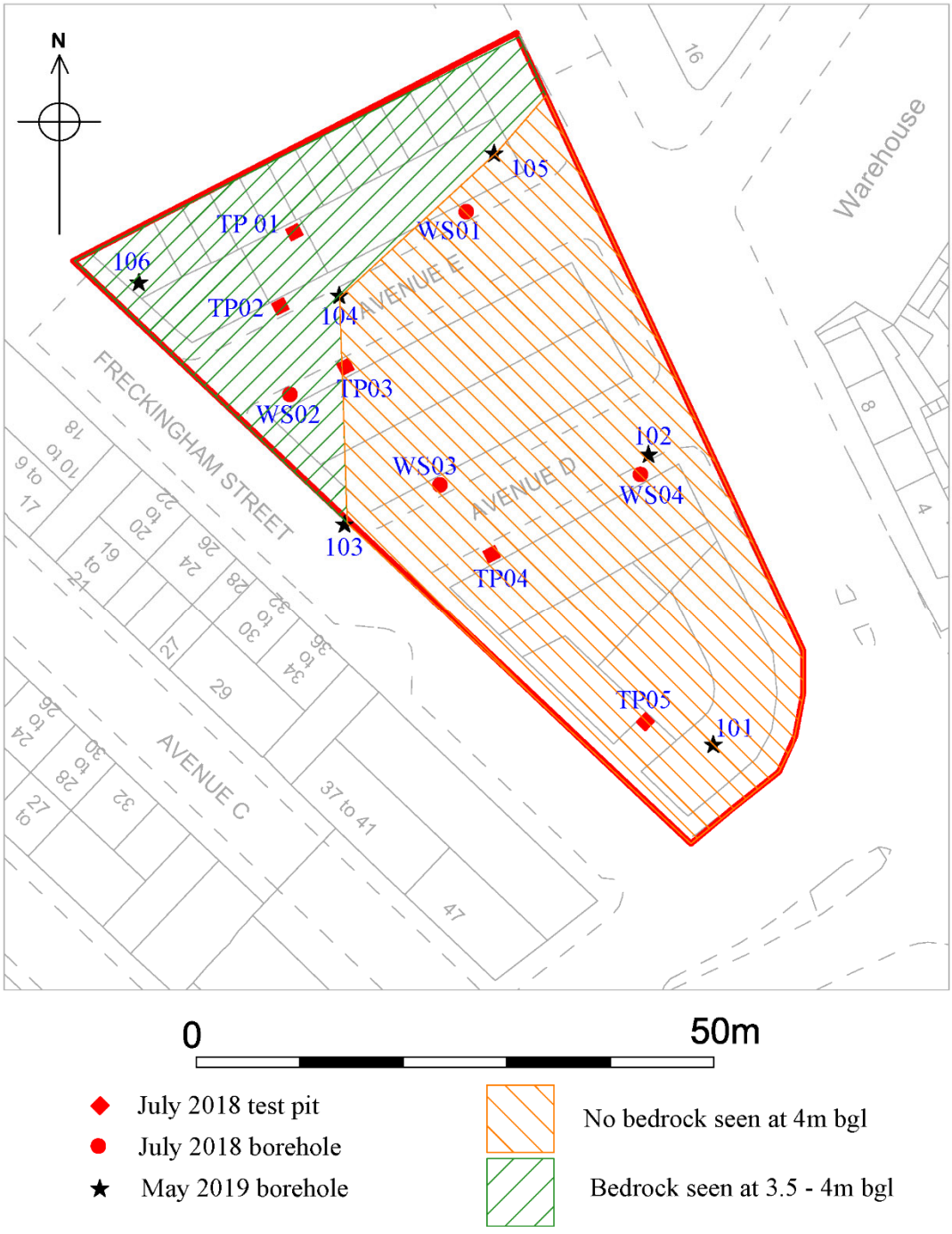

Figure 5 Suggested deposit plan for bedrock and made ground

Deposit Model

Although the data is somewhat limited a deposit model looking at bedrock depths was able to be created using the borehole data. LiDAR data was available for the area and this was used to create a ground level surface using Environment Agency Open Source data and modelling it in ARCGIS 10.3. This shows that the development area lies on the eastern edge of a valley that runs southwards towards the River Trent (Fig. 6).

Bedrock depths were calculated from the LiDAR surface. Where no bedrock was found the height of the base of the borehole was used (Tables 2-3). Those boreholes where bedrock was not seen are shown as black on Fig. 7. This data was used to create first a TIN and then use the TIN to create a surface model. The Surface model was also used to interpolate the bedrock over a wider area a natural neighbour technique (Fig. 7).

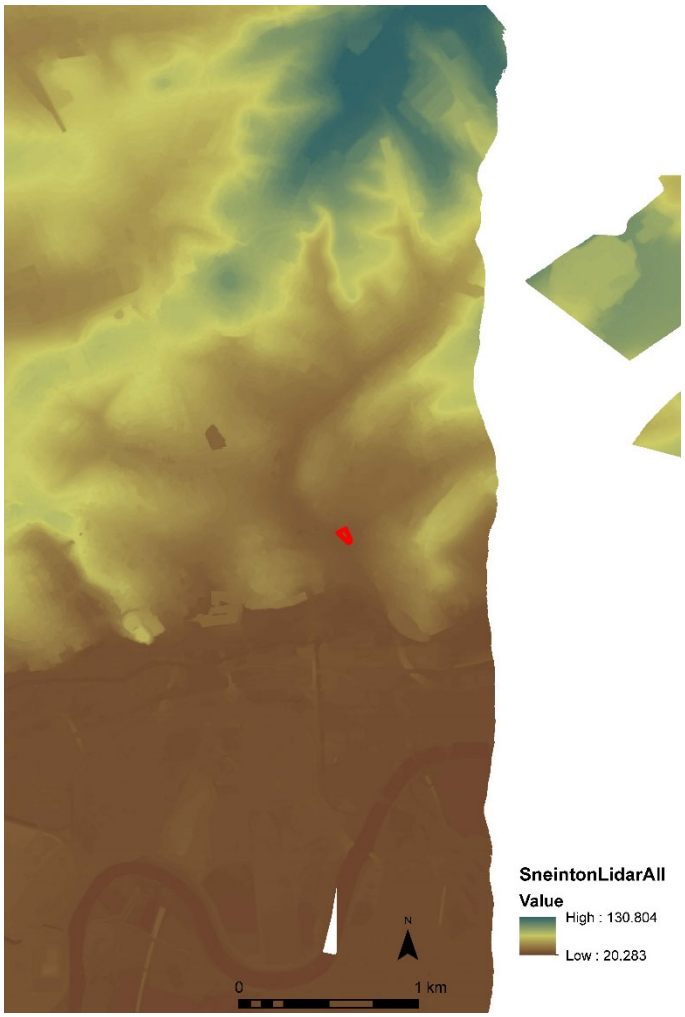

Figure 6 Ground Level surface created from 1m LIDAR DSM. Development Area is in Red. The River Trent is visible at the bottom.
Published by: Environment Agency; Last updated: 07 June 2019

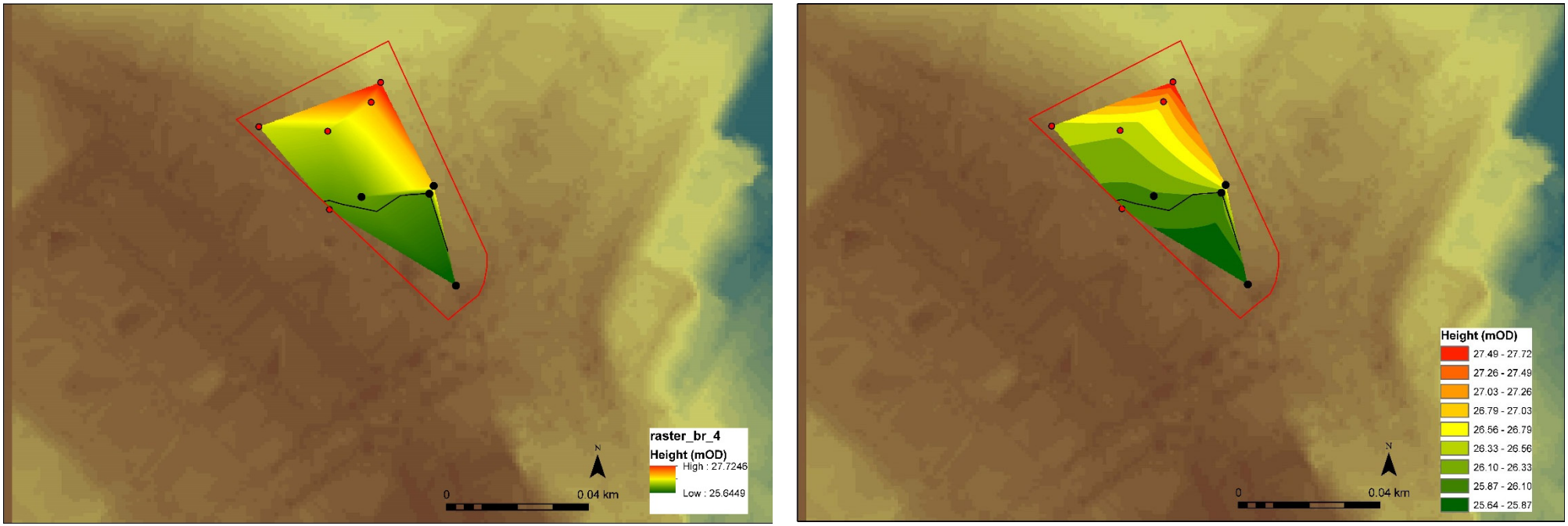

Figure 7 Surface showing bedrock depths overlain on the Ground Surface plan. Red dots = boreholes with identified bedrock. Black holes = bedrock not reached.

Left: surface based on actual depths. Right: interpolated data using Natural Neighbour technique.

Discussion

Despite no clear evidence of any archaeological features being identified during the works the results do indicate that there is a thick layer of made ground across the whole of the site. This made ground layer lies beneath the road surfaces and recent demolition rubble and appears to have a greater concentration of brick, tile, glass and other building material towards the top of the core samples. It is interesting that no domestic pottery or similar items were seen although probably the core samples were too small to catch anything other than general trends in deposits. The layer becomes cleaner and sandier the lower one gets although modern material was still being found at depths of 3.6m below ground level.

The natural bedrock appears to be covered in a silty sand layer before changing to the harder orange brown sandstone seen in caves across the city. None of the boreholes were able to penetrate very far into the bedrock so the presence of any caves which may or may not be present could not be ascertained.

The site lies on the eastern side of a shallow valley, which presumably once carried water from the higher ground to the north down into the Trent Valley. Sanderson's 1830s map of 20 miles around Mansfield shows the River Leen meandering just to the south and west of the area along the northern edge of the Trent floodplain, and it may have been a tributary stream feeding into this river system. The railway station and lines were built over this area – by the time of the 1st edition 1885 OS Map, much of the southern area between the city and the river has been built on although the River Leen is still visible in places. The mapped bedrock levels are consistent with the ground dipping to the west into the valley. Given the depths of made ground it seems likely that this was a deliberate attempt to level this area for development – perhaps even introduced to create a level surface on which to build the new market area.

The made ground layers may have originated from earlier demolition deposits from previous stages of development within the area. This would then suggest a possible late 19th or early 20th century origin for this material which is consistent with the brick and other modern material encountered.

Archive

The archive consists of:
This report,
2 A4 watching brief record sheets,
8 digital photographs from July 2018,
32 digital photographs from May 2019,
Contact sheet of the digital photographs,
1 DVD containing the digital photographs.

Publication

A summary of the work will be submitted for publication in the appropriate archaeological journal. A record of the project will also be submitted to the OASIS project. OASIS is an online index to archaeological grey literature.

Bibliography

Brown, D. 2008. *Standard and Guidance for the Preparation of Archaeological Archives.* Chartered Institute for Archaeologists.

Brown, J., 2006 'Archaeological Trial Trench Evaluation at the Broadmarsh, Nottingham.*' Northamptonshire Archaeology*

Brown, D. 2008. *Standard and guidance for the preparation of Archaeological Archives* (Institute for Archaeologists).

CIfA (Chartered Institute for Archaeologists) 2014a. *Code of Conduct.*

CIfA (Chartered Institute for Archaeologists) 2014b. *Standard and Guidance for Archaeological Watching Briefs.*

CIfA (Chartered Institute for Archaeologists) 2014c. *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives*.

Cooper. N. (ed.) 2006. *The Archaeology of the East Midlands: An Archaeological Resource Assessment and Research Agenda.* Leicester Archaeological Monographs No. 13. University of Leicester Archaeological Services: Leicester.

DCLG (Department of Communities and Local Government) 2018 (Rev.). *National Planning Policy Framework.*

EPS. 2018. *Phase II Geo-Environmental Assessment, Sneinton Market, Avenue D and Avenue E, Nottingham, Nottinghamshire*. EPS Ref: UK18.4107b

Gnanaratnam, A. 2003. *An Archaeological Desk-Based Assessment for Sneinton Market, Nottingham.* (ULAS Report 2003-004)

Historic England, 2006a. *Management of research Projects in the Historic Environment.*

Hunt, L., 2014 *An archaeological desk-based assessment for land at Cliff Road (Narrow Marsh), Nottingham (SK 5649 4149)* ULAS Report 2014-212

Hunt, L., 2018 *Sneinton Market, Avenue D & E*. ULAS

Hyam, A. 2016 *An Archaeological Desk-Based Assessment at at 54–56 High Pavement and 9-10 Short Hill, Nottingham.* ULAS Report 2016-102

Knight, D., Vyner, B. and Allen, C. 2012. *East Midlands Heritage: An updated research agenda and strategy for the Historic Environment of the East Midlands.* University of Nottingham and York Archaeological Trust.

ULAS, 2019 *Written Scheme of Investigation for Archaeological Attendance and Recording during Groundworks at Avenue D and Avenue E, Sneinton Market, Nottingham* (SK 58046 3990)

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