

DALB01



**Double Arches Quarry
Leighton Buzzard
Central Bedfordshire:**

Archaeological Observation, Investigation and Recording

Prepared for Arnold White Estates

PROJECT SUMMARY SHEET

HA Job no.: DALB-001
NGR: SP 9388 2907
Parish: Heath and Reach
Council: Central Beds
OASIS ref.: headland4-180197

Archive will be deposited with: Luton Museum

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Signed off by



[project manager]

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DOUBLE ARCHES QUARRY, LEIGHTON BUZZARD, CENTRAL BEDFORDSHIRE.

Archaeological Observation, Investigation and Recording

Headland Archaeology (UK) Ltd undertook observation of ground-works during the topsoil strip for a haul road, crane base and turbine base, in preparation for the construction of a single wind turbine at Double Arches quarry. This observation was designed to record, and to enhance the understanding of, any significant remains, and mitigate the potential negative impact of the development work on those remains. The undisturbed geological deposit was recorded as silty clay, comparable to the quaternary deposits recorded in this area by the British Geological Survey. The eastern end of the haul road, the crane base and the turbine base were found to be situated in an area which had previously been quarried and backfilled.

1 INTRODUCTION

The Client had been granted consent (planning reference CB/10/03034/FULL) for the construction of a single 2.3 MW turbine, and associated haul road and crane base.

The Central Bedfordshire Archaeological Officer (AO), who advises the Local Planning Authority (LPA) on archaeological matters, advised that the development site shared a parcel of land which included locally significant sites recorded on the Central Bedfordshire Historic Environment Record (CBHER). CBHER noted that Roman cultural material had been recovered during quarrying at Double Arches Quarry during the early 20th century (HER1170). Therefore, under the terms of the National Planning Policy Framework (NPPF) the proposals were considered to have the potential to impact upon these heritage assets.

A Written Scheme of Investigation (WSI) outlining the observation strategy and methodology was prepared by Headland Archaeology (2013) on behalf of the client, and was subsequently approved by the AO.

2 SITE LOCATION AND DESCRIPTION

The site lies in open countryside in southwest Bedfordshire around 1 km northeast of Heath and Reach (site centre SP 9388 2907). The development includes the installation of a wind turbine and associated works. The East of the site is bounded by the A5. The site is currently within the land take of Double Arches Quarry, operated by Bardon Aggregates.

The site is situated on the western slope of a low greensand ridge at a height of 120m AOD, the crest of the ridge is occupied by the A5. The geology of the area is

Lower Greensand originating from early Quaternary glaciations (BGS Geology of Britain Viewer).

3. ARCHAEOLOGICAL BACKGROUND

A search of Central Bedfordshire Historic Environment Record (CBHER) has been undertaken in April 2014. It covered an area of 500m radius centred on the site.

The proposed turbine and access route are located within the vicinity of HER 1170, which relates to Roman occupation evidence. Roman pottery was first identified in 1915 during the first phase of quarrying at Double Arches. In the 1950s and 1960s excavations were undertaken by the Manshead Archaeology Society in advance of further quarrying. These revealed a number of Roman pits containing painted pottery a well and two burials (a man and a woman). The exact location of these finds is uncertain and the HER polygon is an approximate extent rather than a definitive boundary for the record. An article by the Manshead Archaeology Society in 1970 (Manshead Magazine 20, pp25-31) also refers to the remains of a substantial, unrecorded villa being removed during clay stripping for the quarry. Again the exact location of this is not recorded. Subsequent quarrying activity has removed much of these remains, although given the uncertainty of their location and extent, it was possible that pockets of Roman activity still survived within the vicinity of the proposed turbine and access route. A review of historic maps from 1951 to the present and aerial photography from 1947, indicated that pockets of undisturbed land survive within the area of the proposed turbine and access route.

The proposed access route to the turbine runs perpendicular to Watling Street, the Roman road from London to Wroxeter (HER 5088 – the modern A5). Land to the south of the A5 lies within the boundaries of HER 11236, a modern sand quarry shown on a 1947 aerial

photographs (SP 940 294). However, the polygon shown on the HER extends beyond the areas shown on the 1947 image. Indeed, a review of historic maps from 1884 to the present indicates that the extent of quarrying at this point did not exceed that shown on the 1947 image (Trendrevel 2009). It was possible that remains associated with HER 1170 or of hitherto unknown road-side settlement activity and field systems survive within this area.

Approximately 400m to the west of the turbine are the remains of ridge and furrow earthworks (HER 5079). No such remains extend within the area of the proposed turbine or access route.

The narrow gauge railway from Leighton Buzzard to the quarries (HER 11090) was in use from 1919 to the 1960s since when a surviving section of route in Leighton Buzzard has become a tourist line. The access route crosses the line of this railway.

In view of the archaeological background the development site occupies an area with a high potential to contain remains relating to Roman settlement alongside Watling Street.

4 AIMS & OBJECTIVES

In general the purpose of the investigation was to record and enhance understanding of the significance of heritage assets before they are lost (NPPF para 141). This was to be achieved by determining and understanding the nature, function and character of any remains on the site, in their cultural and environmental setting.

The local and regional research contexts are provided by Oake et al (2007), Glazebrook (1997), Brown & Glazebrook (2000) and Medlycott & Brown (2011). Any evidence retrieved during the works will be analysed in light of the objectives contained in these frameworks.

In particular the site had a high potential to contain remains of Roman settlement, burials, Medieval, post-Medieval agriculture and modern quarry infrastructure, all of which are thought to have been influenced by the presence of Watling Street, a main arterial route from south east to north west, running from Dover to Wroxeter.

The specific aims of the monitoring were as follows:

- **Objective 1** – The characterisation of Roman rural settlement and understanding the form and function of settlements (Going and Plouviez (2000) 19, 22; Oake (2007) 11; Medlycott (2011) 47).
- **Objective 2** – Relationship between settlement and the landscape in the Roman period (Oake (2007) 11).

- **Objective 3** – Understanding regional variation in the Roman settlement pattern. Roman settlement patterns in the Greensand Ridge are not well understood in comparison to river valleys, for example (Oake (2007) 11).
- **Objective 4** – Understanding Roman burial practices (Going and Plouviez (2000) 19, 22; Oake (2007) 11; Medlycott (2011) 48).
- **Objective 5** – Sand extraction in the Leighton Buzzard area, including the Leighton Buzzard Light Railway, have been identified as a locally and regionally significant industry (Edgeworth (2007) 134).

5 METHODOLOGY

The archaeological monitoring was undertaken over the course of two days on the 14th and 15th of April 2014. Overburden was stripped using a tracked mechanical excavator, fitted with a flat bladed ditching bucket. In all areas machine stripping was undertaken in shallow spits, under the supervision of a professional archaeologist, until clean natural subsoil or the formation level was observed. A layer of geotextile was placed at formation level on the access road.

5.1 Recording

All recording was in accordance with the code of practice of the Institute for Archaeologists (IfA). All contexts were given unique numbers and stratigraphic relationships were recorded. Recording was undertaken on pro forma record cards that conform to accepted archaeological standards.

A digital photographic record was taken and a metric scale was clearly visible in record photographs.

5.2 Reporting and Archives

The results of the works are presented below. A summary report has been prepared for submission to the OASIS database (headland4-180197). Deposition of the archive, and any other matters relevant to the long-term curation of the archive will be arranged with Luton Museum. The costs for archiving have been included in the project estimate. Guidance provided in *Preparing Archaeological Archives for Deposition in Registered Museums in Bedfordshire* (1998) will be followed. All archive preparation will be undertaken in accordance with guidelines published by the IfA on behalf of the Archaeological Archives Forum (July 2007).

6 RESULTS

6.1 Discussion

The technical detail of contextual information can be found in our Appendices. The following narrative is designed to interpret that technical detail and attempt to categorise its significance. The areas under monitoring are outlined in the illustrations at the end of this report (see Illus 1-2).

Monitoring at Double Arches quarry demonstrated a significant area which had escaped truncation by the quarry workings; this was mainly to the east of the site alongside the modern A5.

To the west, truncation by quarry workings was apparent as the subsoil was interrupted by a clear and distinct deposit of very inconsistent, and poorly sorted deposit of subsoil and topsoil. This change was equated to map information which showed the “cut” for the maximum extent of the quarry (Trendrevel Services, 2009).

Two features were recorded in the area adjacent to the A5, at the east end of the haul road. These were visible as two parallel linear features, spaced around 5 meters apart, forming a series of field boundaries or plough furrows [103], [105]; these features were cut into the natural, mid brown yellow silty clay. They were both filled with a homogenous deposit of light grey-brown silty clay [104], [106]. [104] was found to contain a small assemblage of post-Medieval ceramics, while a small copper alloy bell was recovered from the subsoil in the centre of the feature alignment.

6.2 Finds

Julie Lochrie

The assemblage comprises five abraded sherds of Medieval to post Medieval pottery, two sherds of tile and a metal bell. Finds were present in a total of five contexts. A finds catalogue is included as appendix 2.

Medieval Ceramics

Five abraded sherds of glazed Medieval to post-Medieval red-wares were found in four contexts from Trench 1. A fragment of tile from Trench 2 is also likely to be Medieval to post Medieval in date and was found alongside a Medieval bell.

Other Finds

The only other finds was a decorative cast metal bell. The bell is broken but would originally have been a closed bell containing a small ball inside, known as a rumbler bell. This type of bell is Medieval in date.

Table 1: Significance of Heritage Assets

Description of Heritage Asset	Trench Number	Feature Number/s	Significance of heritage asset on Local, Regional, National, International scale
Undated Trackway		[103], [105]	Low significance of Local Value

6.3 Conclusion

Archaeology was encountered during the course of the watching brief in the form of parallel linear features with a wide shallow profile. Running perpendicular to the A5, they appear to respect the edge of the road. This route, constructed as part of the Roman occupation of Britain, continued in use through the early Medieval period into the present day.

The profile of the linear features suggests wide, shallow, truncated plough furrows. It was noted on site that the Roman and Medieval periods in Bedfordshire are usually find-rich, and therefore the absence of any cultural material from those periods was significant. The lack of any Romano British material from the fills would appear to deny the possibility that they might be early 1st century AD in origin. From the morphology and artifact assemblage, the most logical date for these furrows would be the Medieval or post Medieval periods. Given also the fact that they appear to respect the edge of the road, and that Watling Street continues to be an important route-way from the 1st to the 21st century.

The balance of probability suggests that these features, interpreted as plough furrows relate to the post-Medieval landscape.

7 REFERENCES

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8 APPENDICES

8.1 Appendix 1 – Site registers

Context Register

Context no.	Trench	Description
100	1	Topsoil-Mid brown grey silt loam with many modern inclusions i.e. brick fragments, glass and metal. Max depth c.0.06m
101	1	Subsoil-Light grey brown silty loam with rare pottery inclusions. Similar to topsoil. Max depth c.0.24m
102		Natural-Mid brown yellow silty clay with occasional natural gravel patches.
103	1	Cut of steep sided, round bottomed linear. Filled by [104]. Possible hedgerow/field boundary? Dimensions: 125x1.3x0.25m
104	1	Light grey brown silty clay fill of linear [103]. Rare pot sherds.
105	1	Cut of gradually sloping, round bottomed linear. Filled by [106]. Possible hedgerow/field boundary? Dimensions: 125x1.24x0.22m
106	1	Light grey brown silty clay fill of linear [105].
107	1	Cut of gradually sloping, round bottomed linear. Filled by [108]. Possible field boundary? Dimensions: 71x1.8x0.12
108	1	Mid grey yellow silty clay fill of linear [107].
200	2	Topsoil-Mid brown grey silt loam with many modern inclusions i.e. brick fragments, glass and metal. Max depth c.0.06m
201	2	Natural-Mid brown yellow silty clay with occasional natural gravel patches.

Drawing Register

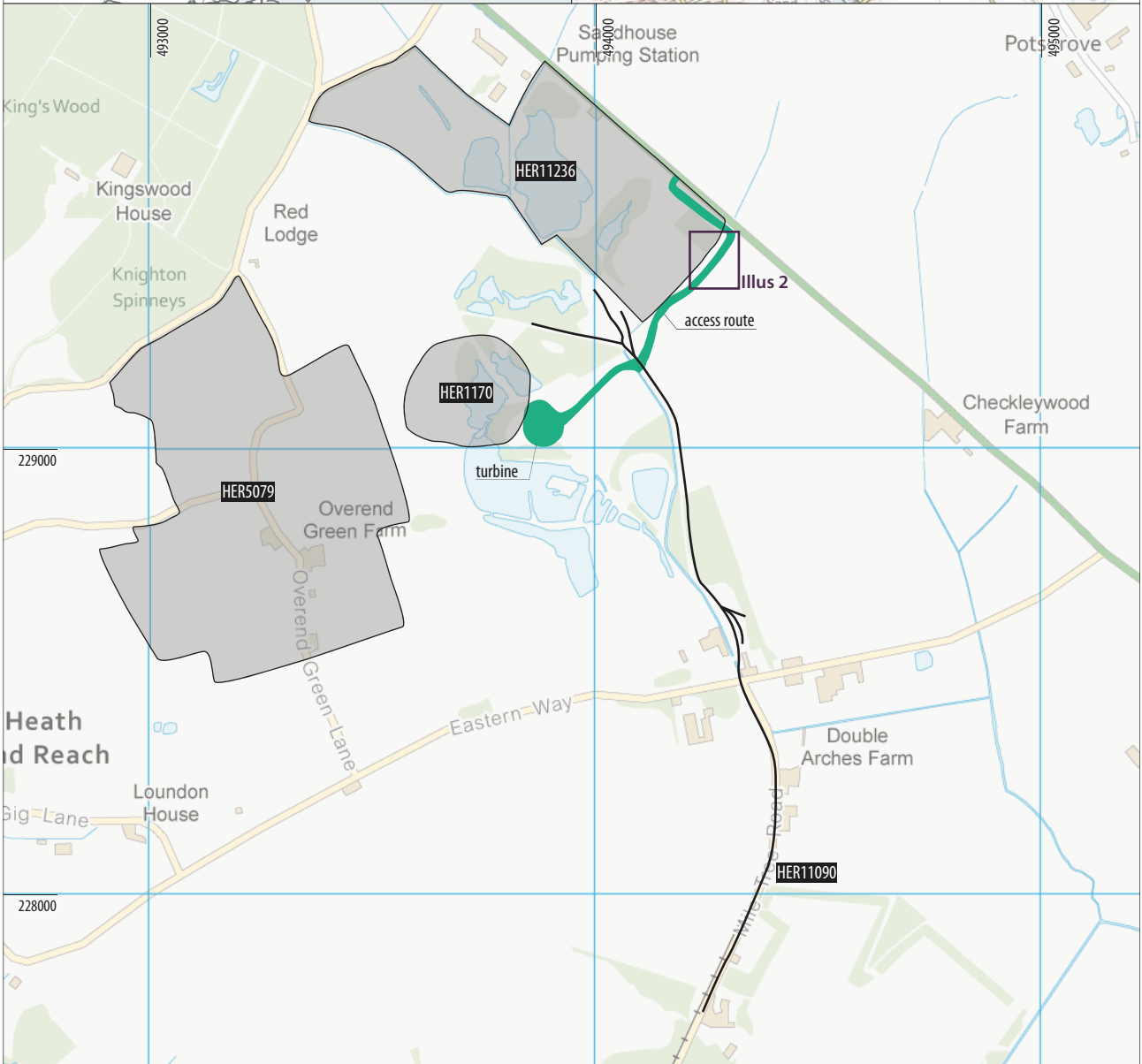
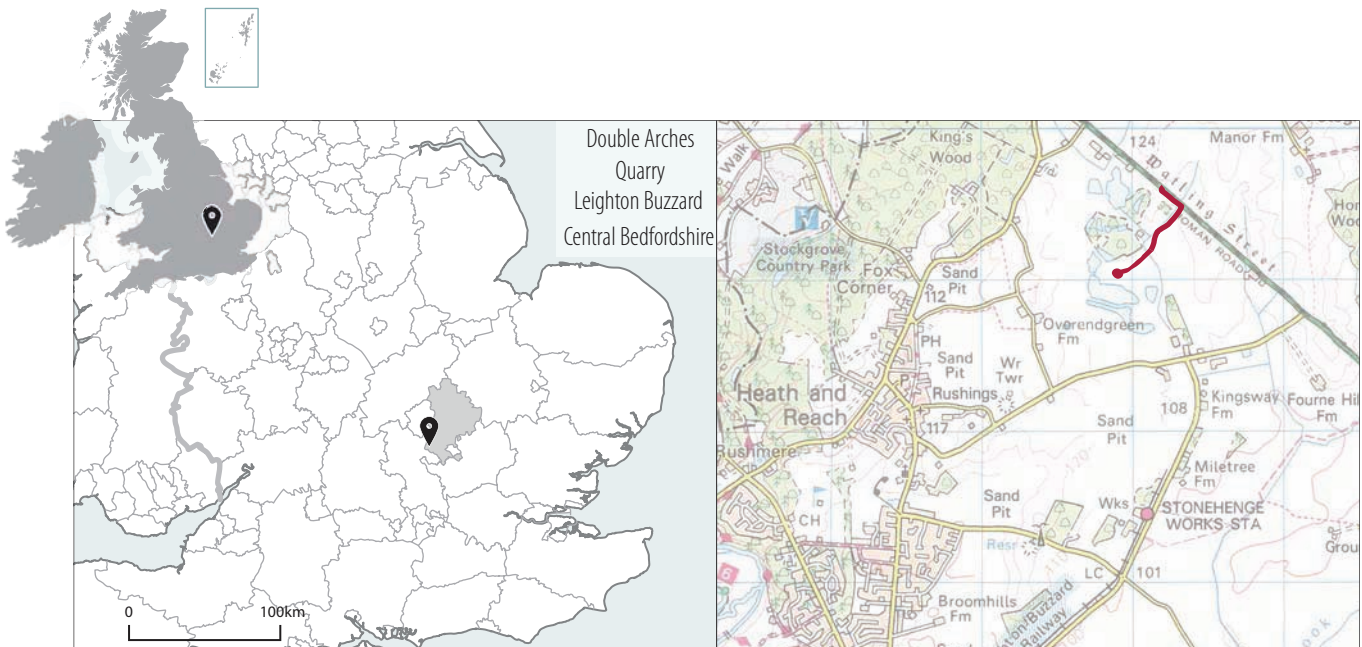
1. Drawing No.	2. Scale	3. Plan/Section	4. Description
5. 1	6. 1:20	7. Section	8. SW facing section of linears [103, 105]
9. 2	10. Not To Scale	11. Plan	12. Sketch plan of haul road

Photographic Register

Frame no.	B/W	Col Slide	Direction	Description
1	-	-	S	Are of turbine base-topsoil stripped
2	-	-	S	Are of turbine base-topsoil stripped
3	36	36	-	ID Shot
4	35	35	S	N facing section of haul road Tr. 1
5	34	34	SE	Slot within [103] and [105]
6	33	33	NE	SW facing section of [103] and [105]
7	32	32	NE	Linear [103, 105]
8	-	-	NE	General shot of stripped area of haul road. Midway along Tr. 1
9	31	31	N	[107] slot in linear
10	30	30	NE	SW facing section of [107]
11	-	-	NE	General shot of NE end of Tr. 1
12	29	29	NE	[103] continuation of [103] along haul road
13	-	-	NE	General shot at NE end of haul road
14	-	-	NW	General shot of Tr.2 SE end
15	28	28	NE	SW facing section of Tr. 2
16	-	-	NW	General shot of stripped area in the NW end of Tr. 2
17	27	27	NW	Plough scars visible at NW end of TR. 2

8.2 Appendix 2 – Finds Catalogue

Trench	Context	Quantity	Weight (g)	Material	Object	Description	Period
1	100	1	4	Pottery (Medi-PM)	Redware	small body sherd with glazed exterior	Medi-PM
1	101	1	4	Pottery (Medi-PM)	Redware	small body sherd with glazed interior	Medi-PM
1	104	1	5	Pottery (Medi-PM)	Redware	small body sherd with glazed interior	Medi-PM
1	108	2	37	Pottery (Medi-PM)	Redware	small and medium body sherd, both glazed	Medi-PM
2	200	2	75	CBM	Tile	reduced interior and oxidised surfaces, one uneven ?grass-marked face	Medi-PM
2	200	1	16	Metal	Rumbler Bell	cast, metal alloy rumbler bell	Medi

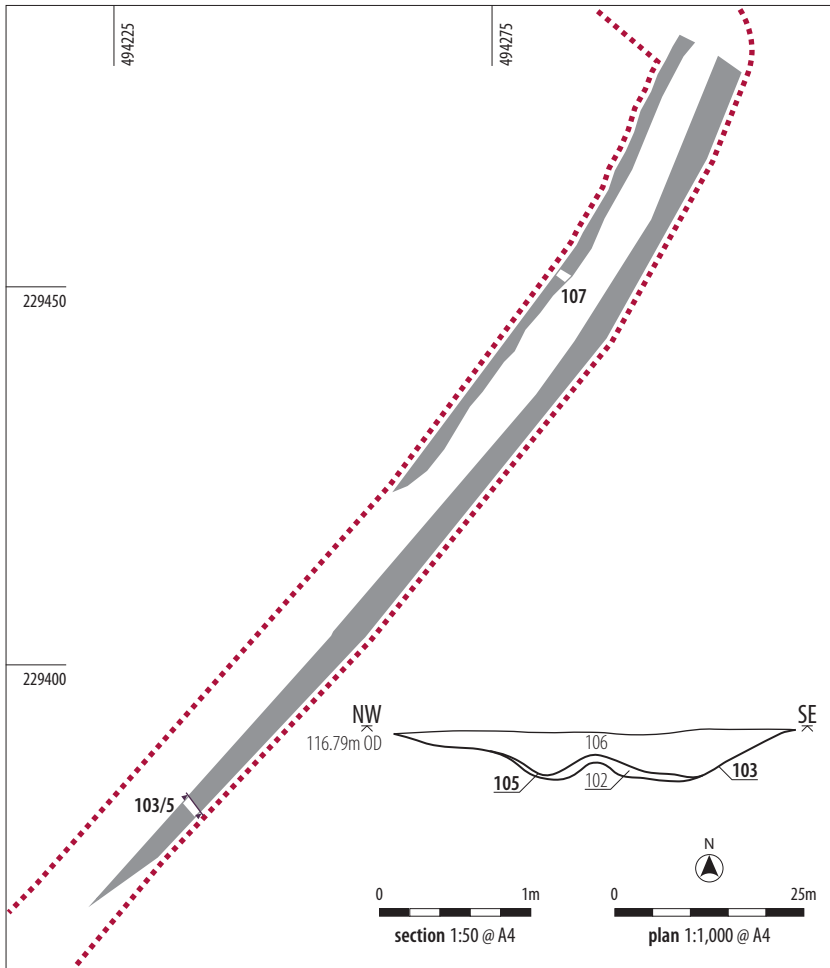


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scale 1:15,000 @ A4

0 500m

Illus 1
 Site location



Illus 2
Plan of excavated features



Illus 3
Plate showing stripped area