



Barnsley West, Southern Roundabout – Heritage Report

Client: Strata Sterling Barnsley West Ltd

Local Planning Authority: Barnsley Metropolitan Borough Council

Planning Reference: 2020/0028

NGR: NGR SE 3142 0677

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1.0 Introduction

1.1 Strata Sterling Barnsley West Ltd has been granted planning permission for highways works comprising construction of new roundabout to create a road link into MU1 Local Plan allocation site, on land at Higham Common Road, Higham, Barnsley (NGR SE 3142 0677) given planning approval on 14/01/2020 (ref: 2020/0028). The permission was subject to several conditions. Condition 11 states:

No development, including any demolition and groundworks, shall take place until the applicant, or their agent or successor in title, has submitted a Written Scheme of Investigation (WSI) that sets out a strategy for archaeological investigation and this has been approved in writing by the Local Planning Authority. The WSI shall include:

- *The programme and method of site investigation and recording.*
- *The requirement to seek preservation in situ of identified features of importance.*
- *The programme for post-investigation assessment.*
- *The provision to be made for analysis and reporting.*
- *The provision to be made for publication and dissemination of the results.*
- *The provision to be made for deposition of the archive created.*
- *Nomination of a competent person/persons or organisation to undertake the works.*
- *The timetable for completion of all site investigation and post-investigation works.*

Thereafter the development shall only take place in accordance with the approved WSI and the development shall not be brought into use until the Local Planning Authority has confirmed in writing that the requirements of the WSI have been fulfilled or alternative timescales agreed. A consultation with South Yorkshire Archaeology Service (SYAS) has identified that trial trenching is required in order to establish the origin of features identified by geophysical survey.

1.2 This report summarises the results of subsequent geophysical survey and geotechnical groundworks which have provided further information on the archaeological potential of the Site and, after consultation with SYAS, is considered sufficient to discharge the above condition.

2.0 Geology and Topography

2.1 The Site is pasture and slopes from c.144m aOD in the west to c.141m in the east. The solid geology of the area comprises Pennine Middle Coal Measures Formation of Mudstone, Siltstone and Sandstone with no superficial deposits.

3.0 Survey Results

Geophysical Survey

3.1 Detailed magnetometer survey was undertaken across the entire site for the proposed roundabout (Area 24 in Bunn, 2021), barring existing carriageways. The results show an extensive zone of

relatively strong magnetic variation, which probably reflects ferrous-rich spoil associated with the construction of the M1 motorway. No anomalies of potential archaeological origin were identified (Bunn, 2021).

Geotechnical Investigations

3.2 Five machine excavated test pits were undertaken as part of geotechnical investigations across the Site in October 2020 (JPG, 2020). In relation to the ground conditions the report states:

3.3 *The published information indicates that there is a large area of 'worked ground' associated with the construction of the M1 motorway. It is indicated to be adjacent to the southern corner of the site.*

3.4 In relation to the results of the machine excavated test pits the reports states:

Reworked topsoil, generally comprising brown clayey slightly gravelly sand with many rootlets and gravels of mudstone and sandstone, was found to be 0.10m thick across the site.

Made ground was encountered beneath the reworked topsoil across the entire proposed roundabout. The made ground generally comprised: Cohesive Made Ground: Firm brown and grey slightly sandy gravelly clay with a low cobble content. The gravel and cobbles are generally of sandstone, mudstone, coal, brick and tile. The made ground also contained occasional rubber and wood fragments.

The made ground was encountered to depths greater than 3.50m bgl (HCR_TP103) in the south of the site. Whereas the made ground was encountered to depths of between 3.40m bgl (HCR_TP104) and 3.50m bgl (HCR_TP105) in the north of the site. The made ground is considered to be representative of reworked natural deposits associated with the creation of the M1 motorway cutting to the southwest.

3.5 Where the natural mudstone was encountered there was no evidence for an interface of topsoil between the natural and made ground suggesting topsoil had been stripped from the Site prior to the dumping of the M1 derived deposits.

4.0 Assessment

Archaeological Potential

4.1 Geophysical survey has identified no anomalies of potential archaeological interest within the site. It has confirmed the presence of made ground deposits across the entire Site and surrounding field. According to geotechnical test pit results, these deposits are no less than 3.4m deep within the Site and sit directly on natural mudstone. This indicates that:

- i) soil was stripped from the site prior to the dumping of the made ground and will have impacted on any buried remains;

- ii) standard evaluation trenches would not penetrate beneath the made ground by a considerable margin.

Effects of Development.

4.2 The proposal is for highways works comprising construction of new roundabout to create a road link into MU1 Local Plan allocation site, and associated earthworks, alterations to existing road alignment, provision of associated footpaths, combined cycle/footpath and verges. The cut and fill analysis plan submitted with the application (4848-JPG-SW-00-M2-C-1600-Roundabouts_CutFill-Higham Common Road Roundabout) shows a maximum cut depth of 2.06m below ground level (bgl).

4.3 Given the depth of made ground derived from the M1 construction, disturbance from construction of the roundabout will not extend to the level of natural mudstone, with a buffer between the deepest excavations and natural in excess of 1m.

5.0 Conclusion and Recommendations

5.1 It is likely that any archaeological potential on the Site has been degraded by previous groundworks associated with the dumping of soil from the M1 construction. These soils extend to a depth of no less than 3.4m bgl across the site. Cut and fill analysis of the proposed development indicates the made ground will not be exceeded in construction of the roundabout.

5.2 It is concluded that no significant archaeological deposits will be impacted and that there is no need for any further evaluation or mitigation. It is recommended that condition 11 is discharged.

6.0 References

Bunn, D, 2021 *Geophysical (Gradiometer) Survey Barnsley West, Barnsley, South Yorkshire*. Pre-Construct Geophysics, Unpublished Report

JPG, 2020 *Geoenvironmental Ground Investigation Higham Common Road Roundabout Barnsley West*, JPG Report Ref: 4848-JPG-HC-XX-RP-G-0603-S2-P02