

**Archaeological Watching Brief at
The Co-operative Academy
Brownhills Road
Tunstall
Stoke-on-Trent
Staffordshire
NGR SJ 8611 5045**

Site Code: BHSWB 11

Produced for
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Non-technical summary

Stoke-on-Trent Archaeology was appointed to undertake an archaeological watching brief during ground works for a temporary car-park at The Co-operative Academy (formerly Brownhills High School) on Brownhills Road, Tunstall, Stoke-on-Trent, Staffordshire (NGR SJ 8611 5045). The development area had been occupied in the late 18th and early 19th century by one of the first pottery manufactories in Tunstall, built in the grounds of nearby Brownhills Hall.

The watching brief was undertaken in February and March 2011 and observed the removal of topsoil to reveal the natural subsoil, which was scored by multiple linear field drains. The contrasting fills of these drains suggests two separate systems. Very little archaeological material was encountered. The overall conclusion was that the site has been heavily disturbed by reduction and levelling, probably in the 20th century.

1.0 Introduction

1.1 Planning permission (application no. SOT/50079) to create a temporary car park at The Co-operative Academy at Brownhills (formerly Brownhills High School), Brownhills Road, Tunstall, Stoke-on-Trent (NGR SJ 8611 5045) (Fig. 1) was approved by the Local Planning Authority, Stoke-on-Trent City Council, with an attached condition requiring an archaeological watching brief during ground works in the development area (DA). Stoke-on-Trent Archaeology (SOTARCH) was appointed to undertake the work by the developer, Balfour Beatty Construction (Northern) Ltd.

2.0 Site location and character

2.1 The DA is an L-shaped site located in the north-west corner of the school grounds and is located about 50m north west of the former site of Brownhills Hall. The site is bounded to the west by Brownhills Road (A527), by an area of industrial waste land to the north, by a vehicular access road in the south and hard games courts to the east (Fig. 2).

2.2 The site is green space, amounting to a gross area of approximately 800m² and lies approximately 2m below the level of the surrounding ground. The southern half of the DA includes a shed containing gas meters (Weare 2009, 11) and an overflow car park defined by an earth bund and paved with plastic ‘grass-paving’. The remainder of the site is managed grassland crossed by a tarmac footway. The topography is flat, falling gently to the east (Plates 1 & 2).

3.0 Geology

3.1 The geological setting of the DA comprises superficial drifts of glacial till and alluvium, overlying a solid geology (bedrock) of Carboniferous Etruria Marl consisting of red and brown mottled Mudstone (Weare 2009).

4.0 Historical background

4.1 Brownhills was described in the early 19th century as, ‘a pleasant village’ (Pigot 1828, 723), which Yates’ Map of 1775 (Fig. 4) indicates was focused on modern Canal Lane, directly opposite the school. The DA is located on land that can be traced back to 1590 when it was included in the marriage settlement of Thomas Burslem and was

described as ‘one pasture, called *Brown-hills*, under lease to John Leigh’ (Ward 1843, 152).

4.2 The eminent potter John Wood purchased the land in 1782 and built a house and pottery works within its boundaries; the works was one of the earliest potteries in the Tunstall area and is listed in 1796 as an earthenware manufactory (Henrywood 2002, 251). Wood’s son, also John, inherited the estate in 1797 after his father was murdered at the hall by a rejected suitor for his daughter’s hand.

4.3 John junior carried on the potting business, although by 1818 (Pigot, 358) he was in partnership as Wood & Brettell and as Wood & Challinor in 1828 (Pigot, 726). Shaw (1829, 19) describes the manufactory as ‘moderately extensive’ and Brownhills Hall as an, ‘... elegant mansion of a moderate yet convenient size, placed in a well-arranged paddock and gardens, from which there are beautiful prospects ...’. In 1830, however, John demolished the manufactory, enlarged the house and landscaped the grounds (Godden 1972, 143).

4.4 The estate remained in the Wood family until at least 1912 (Greenslade 1963, 118), but from 1927 it was occupied by Brownhills High School for Girls, the first grammar school for girls in Stoke-on-Trent, which incorporated Brownhills Hall until its demolition in c.1963.

5.0 Site development

5.1 The historical Ordnance Survey (OS) drainage map of 1851 (Fig. 5) shows the area of the DA containing a rectangular, presumably walled enclosure, lined with trees, with a dwelling fronting Brownhills Road in its north-west corner. At the south end of this building is a wash house and outside privies. In the north-east corner of the enclosure is an outbuilding, beyond which is a property identified as Brown Hills Cottage. To the east is a small pond. Between them is a carriage road to Brownhills Hall which runs past a large building located in the south-east corner of the enclosure, which may be stables or a carriage house.

5.2 The 1879 OS map (Fig. 6) shows no major changes, although it does confirm access from the carriage way into the enclosure. There is little change on the 1899 OS edition,

although the pond may have been filled in. By 1924 the enclosure is divided by a transverse wall and the outbuilding is gone (Fig. 7). The study area is depicted in an isometric illustration for the school prospectus drawn in 1929 which, despite distortions in perspective, shows Brown Hills Cottage and the enclosed house. In addition, it reveals a hockey pitch within a hedge-lined field immediately east of the DA (Fig. 10).

5.3 The 1937 OS edition (Fig. 8) now shows the high school and although the hall is still extant, Brown Hills Cottage and the large building at the south-east corner of the enclosure are gone, while to the north is the Brownhills Tile Works. The shed that now sits at the south end of the DA is present, as is the access road. The 1951 OS map (Fig. 9) shows the house and enclosure gone and the DA as open space. There are no obvious changes until 1977 when the OS map shows the imposition of a games court, while anecdotal evidence suggests that the hard courts defining the east side of the DA were only laid out in *c.*1996 (Weare 2009, 3).

6.0 Methodology

6.1 Aims and objectives

6.1.1 A watching brief is defined by the Institute for Archaeologists' (IfA) *Standard and Guidance for an archaeological watching brief* (revised October 2008) as a programme of observation and investigation conducted during any operation carried out for non-archaeological reasons which may disturb the integrity of the potential archaeological resource within a given area or site and define its nature, depth and preservation.

6.1.2 The project was undertaken in accordance with the statutory planning and development process as defined in Policy NC14 (*Sites of Archaeological Importance*) of the *Staffordshire & Stoke-on-Trent Structure Plan* and conformed with relevant national guidelines and government legislation set out in Planning Policy Statement 5 (PPS5): *Planning and the Historic Environment, 2010*.

6.1.3 The project was undertaken in accordance with the Planning Archaeologist's project brief (Boothroyd 2011) and a Written Scheme of Investigation (WSI) produced by SOTARCH (Goodwin 2011).

6.1.4 Archaeological monitoring was conducted intermittently between the 28th February and the 7th March 2011 and conformed to current best archaeological practice and the relevant national codes of conduct, standards and guidance advocated in the *By-laws of the Institute for Archaeologists* (revised October 2008).

6.1.5 The project involved the monitoring of all ground intervention works undertaken by two 360° mechanical excavators using GP and ditching buckets, followed by inspection of the exposed subsoil for archaeological features with which to characterise the site. Written records in the form of site notes and annotated sketches were made during the project, supplemented by digital colour and 35mm monochrome photographs to show specific stages of the project and the layout and relationship of any archaeological features or deposits.

6.1.6 A site archive representing the collation and indexing of the data and material gathered during the course of the watching brief is stored at The Potteries Museum & Art Gallery, Bethesda Street, Hanley, Stoke-on-Trent (site code **BHSWB 11**).

7.0 Results of the watching brief

7.1 At the south end of DA the combined turf and ‘grass-paving’ layer (100), 0.08m deep, was stripped to an underlying bedding layer of orange/red sand and gravel (102), which extended to c.0.25m below modern ground level (bgl). This overlay a horizon of yellow/orange clayey sand with moderate inclusions of small to medium pebbles (103). This substrate was partially revealed where the bund was removed and was interpreted as natural subsoil.

7.2 The remainder of the DA was reduced to a depth of up to 0.25m bgl to reveal a uniform deposit profile, with the uppermost horizon comprising turf and topsoil (101), containing modern refuse deposits, including drinks cans and a significant number of disposable pens. This horizon directly overlay natural subsoil, represented by the yellow/orange clayey sand (103) encountered at the south end of the DA. Stripped soils were removed from site by dumper truck.

7.3 The exposed surface of (103) was found to be scored with multiple linear features. Machining revealed some of these features as field drains, with a particularly dense

concentration encountered in the northern half of the DA (Fig. 3, Plate 3). The majority were aligned NW-SE with the remainder on an E-W axis. Some appeared to be interconnected and most continued under the adjacent games court. Two drains (104-105) in the southern half of the DA were partially obscured by bedding layer (102).

7.4 Drains (104-111) and (114-116) were all *c.*0.20m in width and contained porous side-fills of medium-sized rounded pebbles (Plate 4). An exposed portion of drain (109) revealed individual pipe segments measuring 0.30m in length with an outside diameter of 0.11m. A handful of early 20th-century pottery sherds were recovered from the fills of (114) and (115).

7.5 Drains (112-113) and (117-123) differed from those already mentioned in that they contained side-fills of dark gritty loam. They were of irregular width and length and several had been cut by the pebble-filled drains. The largest was drain (112) (Plate 5), which was 0.70m wide and had been cut by (111). It appeared to have two off-shoots (113) and (123). Although (113) had been transected by (114-116) it appeared to join with, or terminate at (110). Both off-shoots contained a red ceramic pipe with longitudinal ribs *c.*0.15m below the reduced ground level. A single sherd of early 20th-century pottery was recovered from the fill of (113).

7.6 The starting point of drain (117) was a large, smooth stone sunk into clay (103) (Plate 6), although the ceramic pipe was ostensibly identical to that in (109) (see 7.4). Drain (118) terminated at a sub-rectangular brick feature (1.20m E-W x 1.0m N-S), which was probably an inspection chamber. Drains (117-121) had all been cut by (122), while (119-121) had been cut by (111).

7.7 A large dump of glazed ceramic tiles was revealed in the north-east corner of the DA (Plate 7). This assemblage (124) was visible along a *c.*11.50m length of the south-facing section. A number of the tiles were back-stamped 'H. & R. JOHNSON LTD', one of which featured a 1970 date code (Retroslect 2004).

8.0 Conclusions

8.1 The watching brief revealed no evidence of the pottery manufactory or later buildings depicted within the development area on the historical maps. The DA was, however,

criss-crossed by a number of land drains, presumably part of a 'tile drainage' network (Harvey 1980, 72) that utilised the eastward slope to discharge water into the Scotia Brook. Although it is likely that this drainage plan was established in at least two phases, it was not possible to accurately date its creation. It is probable, however, that it was first laid out during the landscaping of the playing fields in the late 1920s. The deposit of late 20th-century tiles (124) that were recorded in the north-eastern corner of the development area indicated that later landscaping works had also taken place within the playing fields.

8.2 That the natural subsoil was encountered at a shallow depth and lay directly beneath modern surfacing suggests that ground reduction and levelling work associated with the present school had impacted severely upon any surviving below-ground archaeological deposits.

9.0 Acknowledgements

9.1 The watching brief was conducted by Richard Cramp, who also wrote this report. Thanks are extended to Noel Boothroyd, Stoke-on-Trent City Council Planning Archaeologist; the client, Balfour Beatty Construction (Northern) Ltd; and contractor, KJB Groundworks, for their valuable assistance and co-operation.

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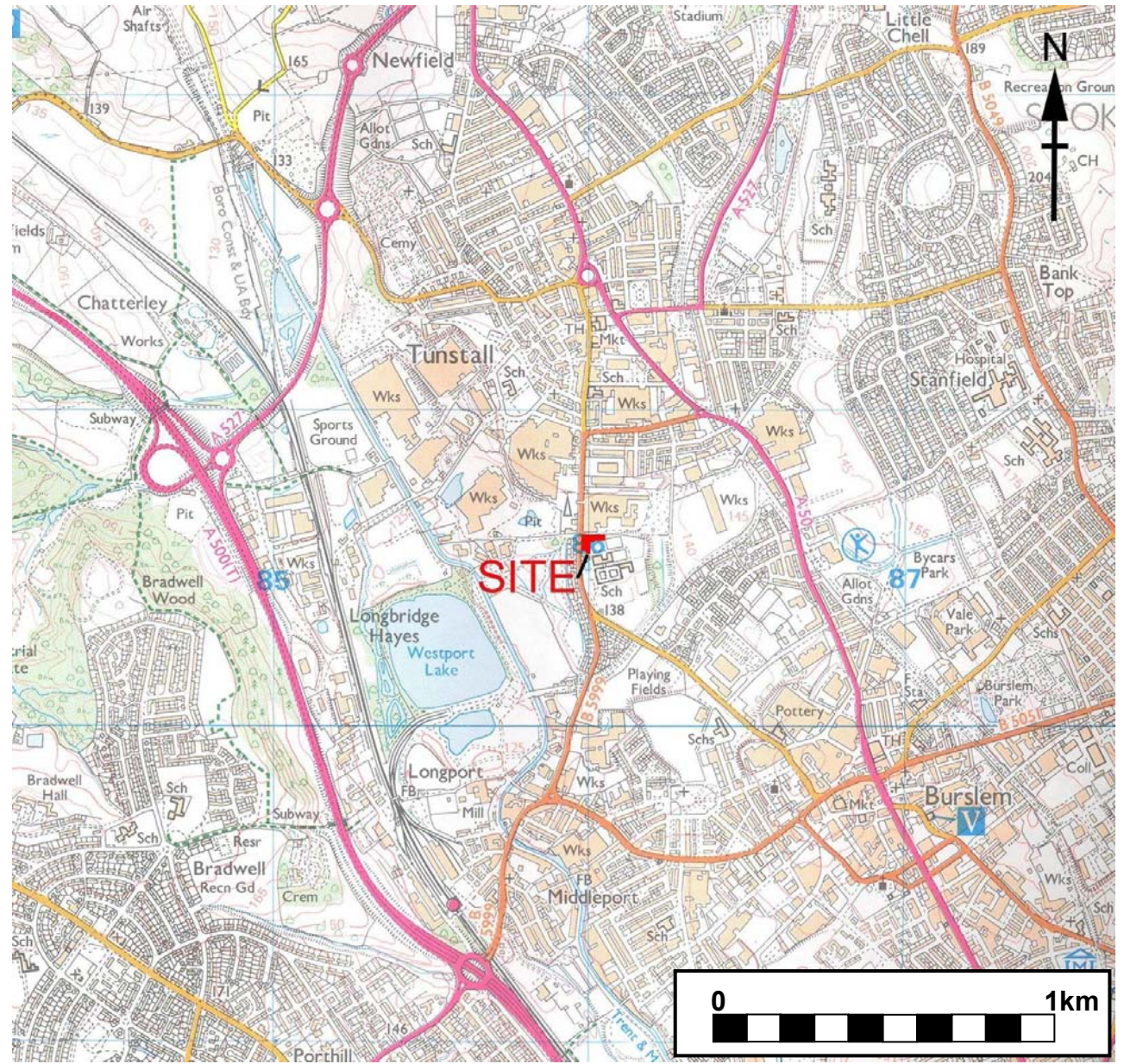
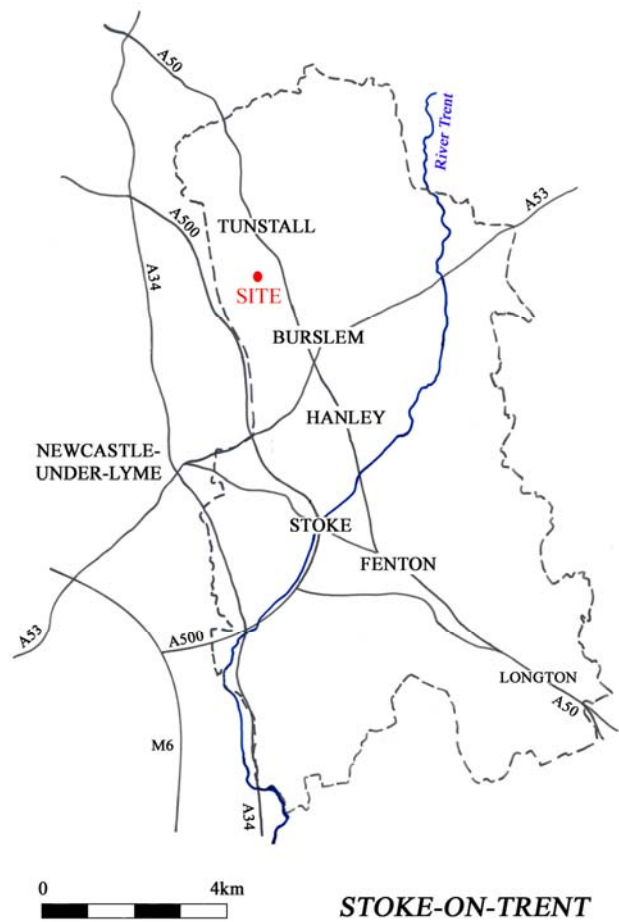


FIG. 1
Site location.



FIG. 2

Modern plan of Brownhills School showing the location of the development area (outlined in red).

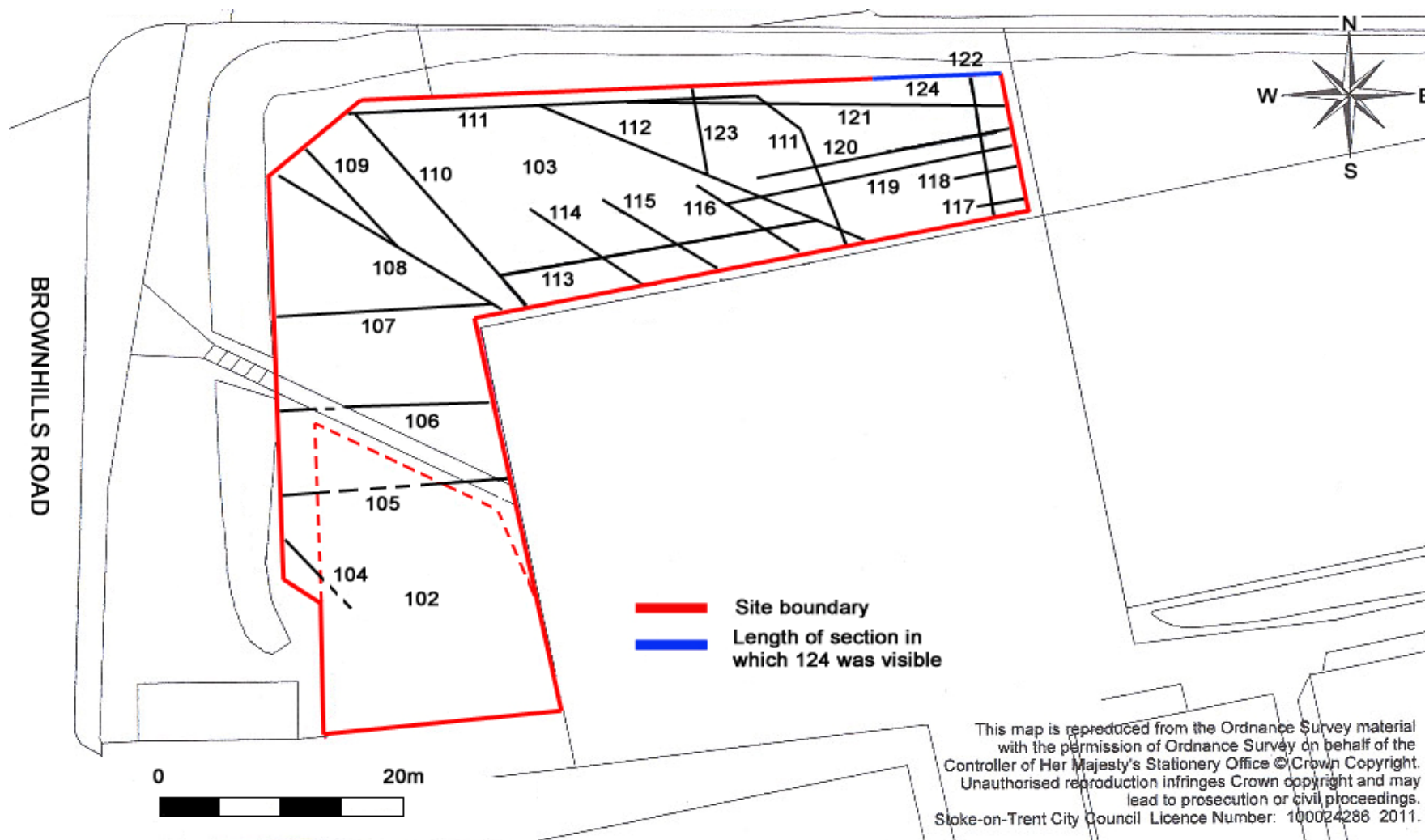


FIG. 3

Post-excavation plan of development area showing location of features.



FIG. 4

Extract from Yates' Map of 1775 showing the approximate location of the development area.

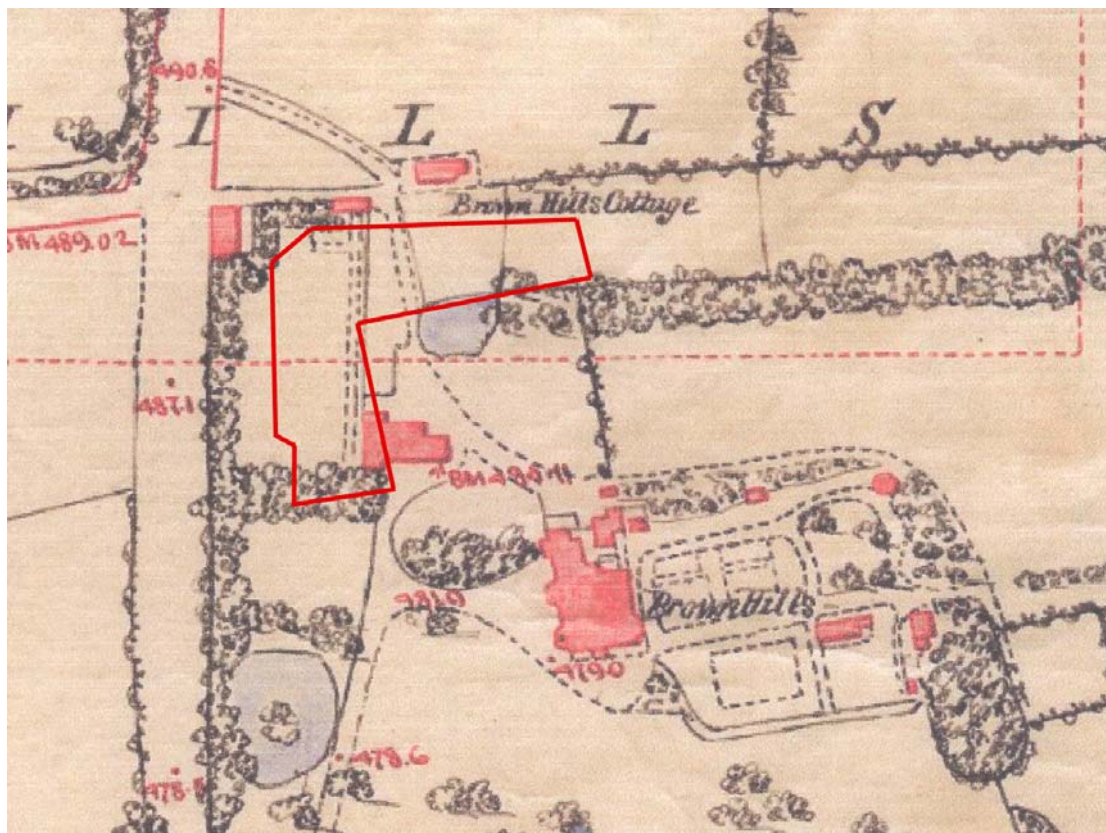


FIG. 5

Extract from the Burslem Drainage Map of 1851 (with the development area outlined in red).

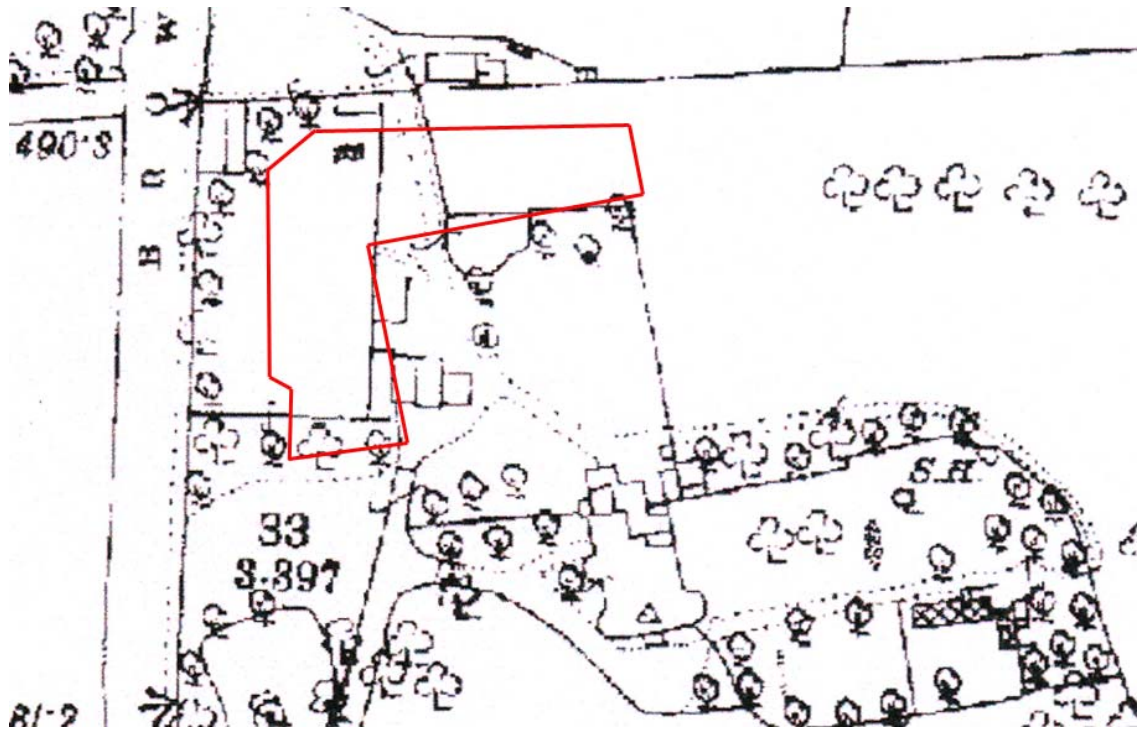


FIG. 6

Extract from 1879 OS map (with the development area outlined in red).

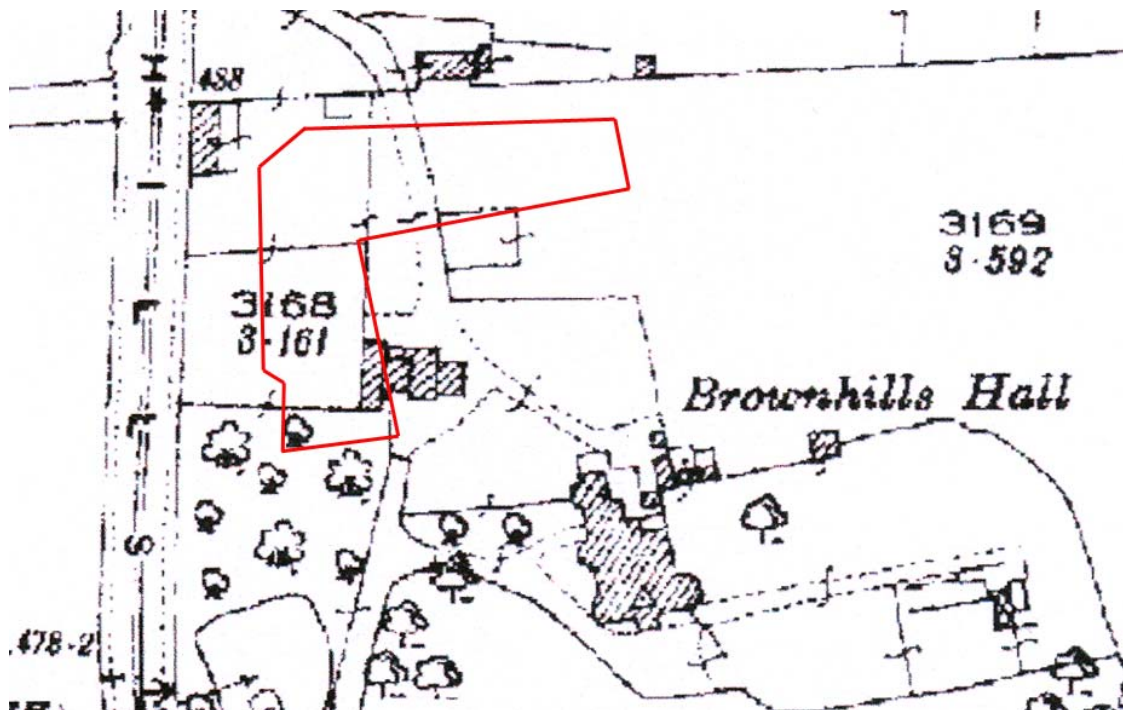


FIG. 7

Extract from 1924 OS map (with development area outlined in red).

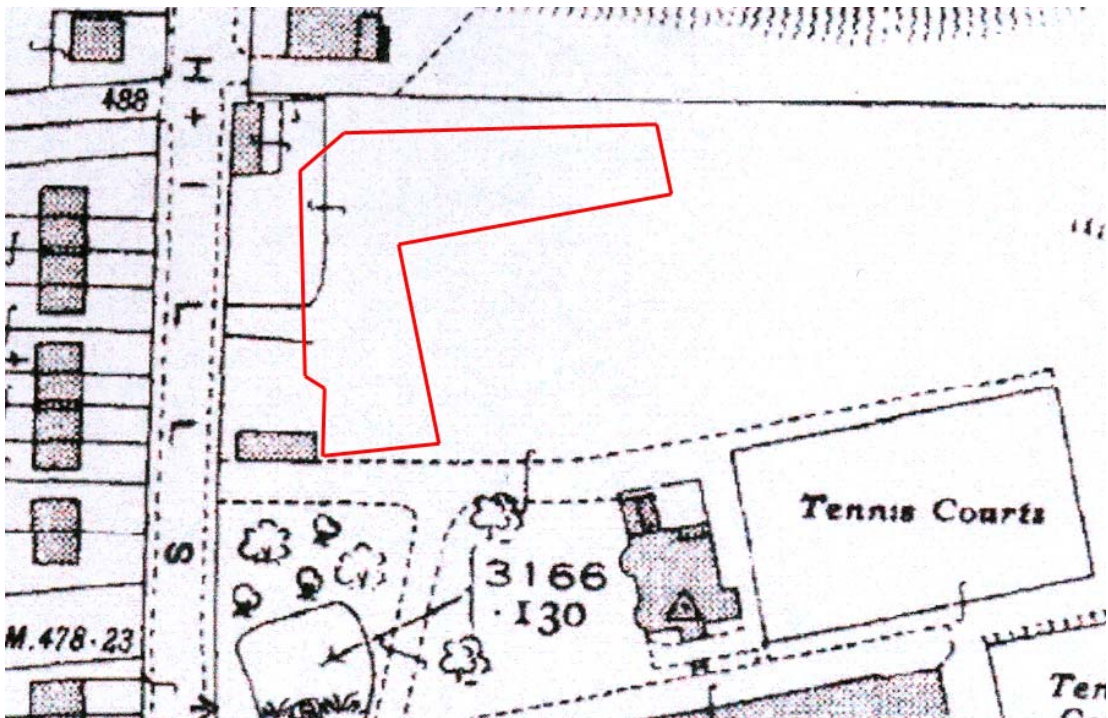


FIG. 8

Extract from 1937 OS map (with development area outlined in red).

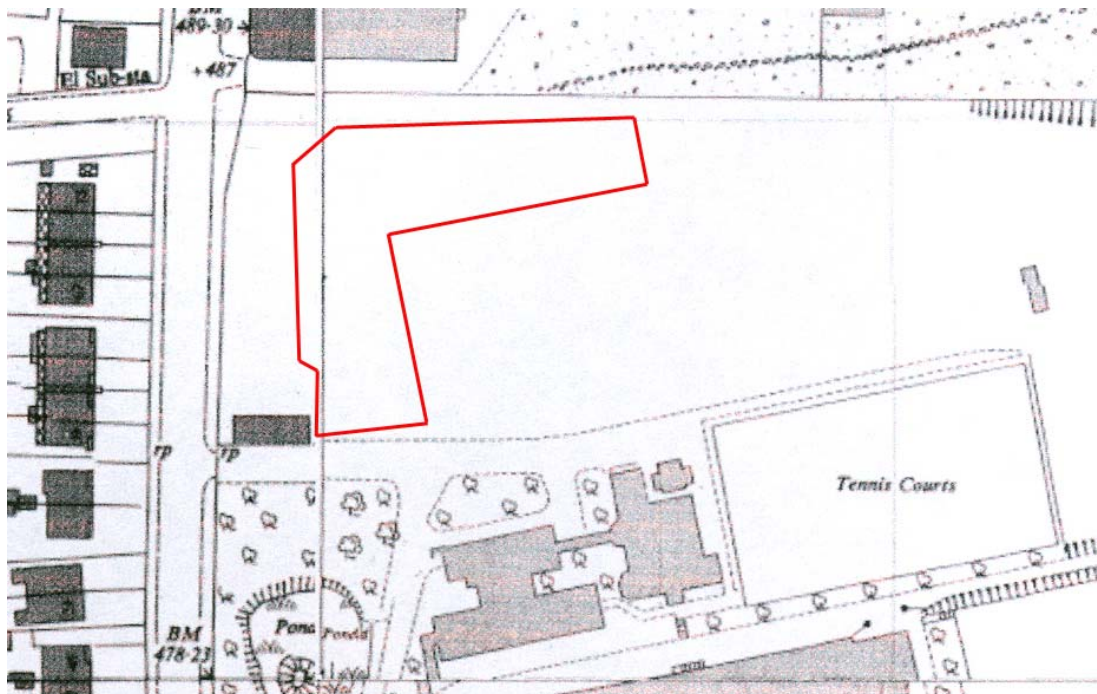


FIG. 9

Extract from 1951 OS map (with development area outlined in red).

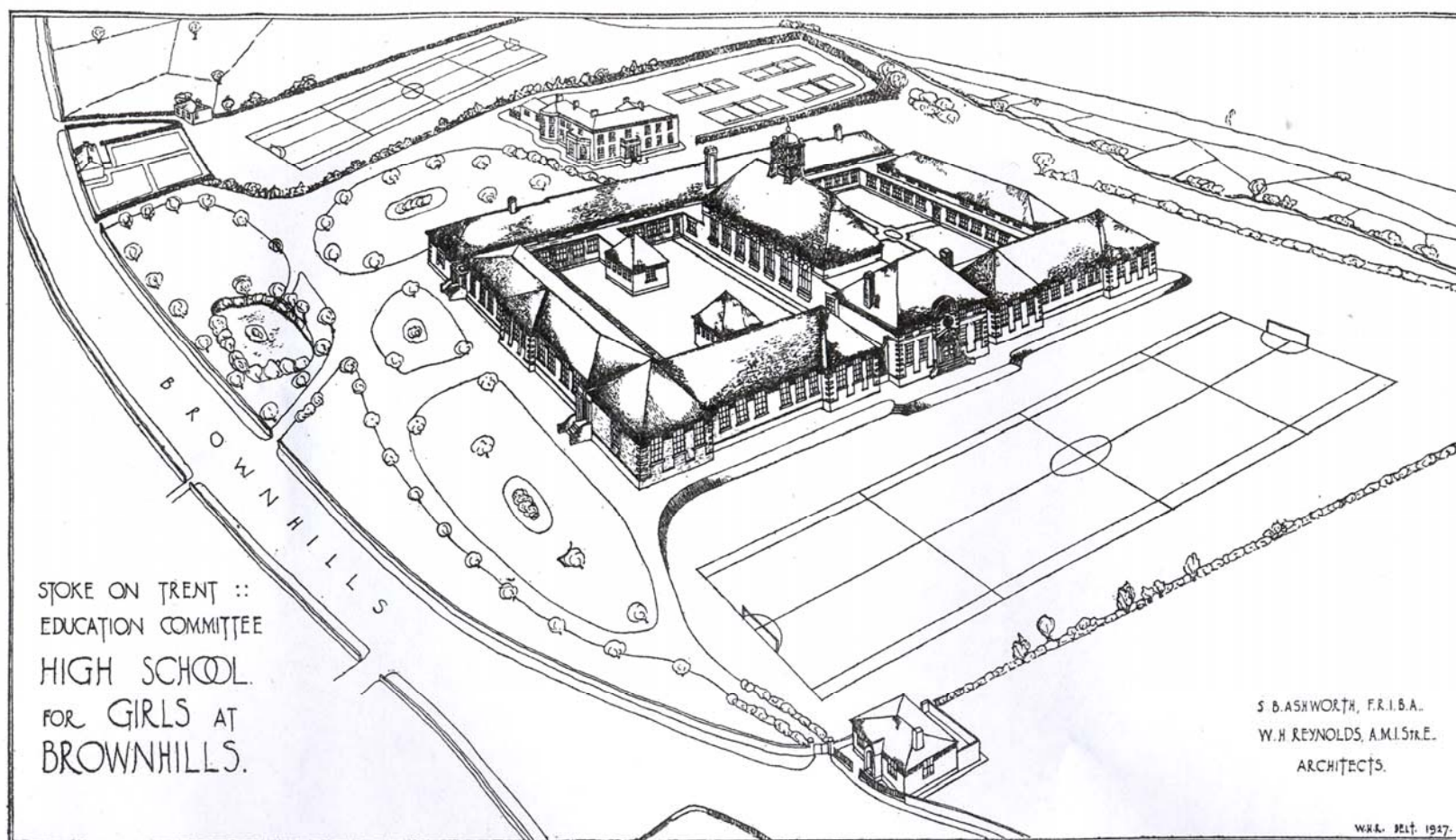


FIG. 10

Isometric view produced of the new school in 1929, looking north east. The development area is located in the upper left corner of the illustration and shows two dwellings and an adjacent hockey pitch.



PLATE 1

General view of the northern part of the development area, looking east.



PLATE 2

General view of the southern part of the development area, looking south.



PLATE 3

The northern area following soil strip showing multiple drainage features within the natural (103), looking south east.



PLATE 4

An exposed portion of land drain (109) showing ceramic pipe and pebble side-fill (scale: 0.25m).



PLATE 5

Land drain (112), looking north west cut by pebble-filled (111) (scale: 0.25m).



PLATE 6

Land drain (117), looking east. The large stone marked its starting point (scale: 0.25m).



PLATE 7

The assemblage of glazed tiles (124) uncovered in the north-east corner of the development area (scale: 0.25m).