Archaeological Building Recording at Brownhills High School Brownhills Road Tunstall Stoke-on-Trent NGR SJ 86070 50475

Planning Application no.: SOT/50079

Site Code: BHS10

Produced for

Balfour Beatty Construction Northern

by

Zoë Sutherland

of

Stoke-on-Trent Archaeology

Bethesda Street, Hanley, Stoke-on-Trent

Staffordshire ST1 3DW

Tel: 01782 235413

Fax: 0172 232500

Email: jon.goodwin@stoke.gov.uk

Website: www.stoke.gov.uk/archaeology

Report No. 304

November 2010

Contents

Non-technical summary

Stoke-on-Trent Archaeology carried out an archaeological building recording at Brownhills High School, Brownhills Road, Tunstall, Stoke-on-Trent (NGR SJ 86070 50475) between the 10th and the 13th August 2010. The building recording focused on the original school building at the south side of the modern complex. It was constructed from 1927-30 as a girls' secondary grammar school and was one of the first schools to be built in Stoke-on-Trent after the end of the First World War. The building façade was neo-Georgian in style and was of the popular pavilion plan with blocks arranged around a quadrangle divided into two separate courtyards by a central assembly hall.

The original school building had both general-purpose classrooms and specialist science laboratories and art rooms, most of which have retained their original functions. Facilities for the original school building were also located within Brownhills Hall, perhaps utilised as a cost saving measure in the hard economic times of the inter-war years. The school was extended to the north of the current building between 1937 and 1950 and to the west between 1950 and 1963. The demolition of Brownhills Hall took place between 1963 and 1974 along with further extensions to the school.

1.0 Introduction

1.1 A planning application was received by the Local Planning Authority (LPA), Stoke-on-Trent City Council (ref. no. SOT/50079) for a new academy on the site of Brownhills High School, Brownhills Road, Tunstall (NGR SJ 86070 50475) (Fig. 1). As this application included the demolition of the existing school building, the LPA, acting on advice from the city's Planning Archaeologist (PA), required a scheme of archaeological work as a condition of planning consent. This included a programme of archaeological building recording, to be undertaken prior to any demolition works. Stoke-on-Trent Archaeology was subsequently appointed to undertake the work by the developer, Balfour Beatty Construction Northern.

2.0 Scope and aims of the project

2.1 The recording programme was undertaken in accordance with a design brief prepared by the PA (Boothroyd 2010), which required that the building recording should be carried out to Level 3 standard of the English Heritage guidelines *Understanding Historic Buildings: A guide to good recording practice* (2006), and should comprise drawn, written and photographic elements.

2.2 The primary purpose of the project was the archaeological recording of the original school building, noting structural elements and phasing evidence illustrative of its development and changing function. This was to be achieved through visual inspection and written description, a measured survey, and a photographic survey. The survey and report were undertaken in accordance with guidance laid down in the Institute for Archaeologists' (IfA) *Standards and Guidance for the Archaeological Investigation and Recording of Standing Buildings and Structures* (revised October 2008) and the English Heritage publication *Management of Archaeological Projects* (2nd Edition).

3.0 Historical background

3.1 The origins of Brownhills High School lie in the Tunstall High School for girls, opened in January 1922 (The Staffordshire Sentinel 1922, 3). It was a fee-paying grammar school with a number of free places awarded each year on the basis of a scholarship (City of Stoke-on-Trent Education Committee 1929, 5). The school was housed temporarily in the Tunstall Victoria Institute (the public library) until a new purpose built school could be constructed (Warrilow 1960, 301). The school had an

initial intake of 90 pupils, with 90 more pupils admitted each year until a maximum of 400 places was filled (The Staffordshire Sentinel 1922, 3).

3.2 Tunstall High School was founded by the Stoke-on-Trent Education Committee, which replaced separate education committees for each of the six towns from 1911 onwards (Warrilow 1960, 297). It had been felt for some time that there was a need for increased facilities for secondary education, but progress in this matter was halted during the First World War (Warrilow 1960, 299). Tunstall High School was one of the first to be established in the city after the First World War (Young 1963, 311-327) and its establishment relieved the congestion both in existing elementary schools with provision for higher education, and in the few secondary schools in the city, particularly those in Hanley and Longton (Young 1963, 310).

3.3 In 1923, Brownhills Hall and sixteen acres of surrounding land were purchased for a sum of £5,500 with the intention of constructing a new school. Plans for the new building were prepared by the Architect to the Stoke-on-Trent Education Committee, Mr S.B. Ashworth, and supervised by the Acting Architect, W.H Reynolds. The hall was to be altered for use by the school, the work to be done in advance of the new building so that some of the pressure on the Tunstall Victoria Institute might be relieved sooner. The foundation stone for the new school was laid by Lord Eustace Percy M.P, president of the Board of Education, on the 13th June 1927(The Staffordshire Sentinel 1927, 5).

3.5 The new school was finally opened with a formal ceremony on 19th March 1929 by The Duchess of Atholl, parliamentary secretary to the Board of Education (The Staffordshire Evening Sentinel 1929, 5). The final cost of the scheme came to £43,000 and provided space for 420 pupils (Warrilow 1960, 301). *The Staffordshire Evening Sentinel* that day reported that the new school had:

'an entrance hall, crush hall, assembly hall, 13 classrooms, art room, chemical laboratory, physical laboratory, botany laboratory and conservatory, balance room, preparation room, lecture theatre, dark room (for lantern), head mistress's room, assistant mistresses' rooms, waiting room, sick room…Brownhills Hall has been reconstructed and adapted for school purposes. Its main purpose will be that of a domestic centre, where cookery and laundry will be taught. In this building are also a reading room, library, music room,

staff dining room and two other dining rooms' (The Staffordshire Evening Sentinel 1929, 5).

Besides this, provision for the future expansion of the school had been made with plans for three further classrooms and a gymnasium (The Staffordshire Evening Sentinel 1929, 5).

3.6 With the move to the new building at Brownhills (Fig. 5), the Tunstall High School for Girls was renamed Brownhills High School for Girls. The school prospectus for the academic year 1929-30 records that the aim of the school was, 'not only to give instruction and prepare for examinations, but also to give that character training which will enable the girls to take a responsible position in later life, and will fit them for citizenship by teaching them leadership, independence, and self-control' (City of Stoke-on-Trent Education Committee 1929, 10). Children could be admitted from the age of ten and parents were required to sign an agreement to keep them in the school for at least four years, or ideally until the age of sixteen. The curriculum included Scripture, English, Mathematics, Science, History, Geography, French, Art and Singing with options to study Latin and Domestic Science. Fees for 1929-30 where set at £6 6s/annum or £2 2s/term for Stoke-on-Trent residents and £10 10s/annum or £3 10s/term for those living out with the city (City of Stoke-on-Trent Education Committee 1929, 5-9).

3.7 Brownhills High School became a mixed gender comprehensive in the early 1970s (Mott MacDonald 2009, 18) and gained Maths and Computing College Status in 2005 (Schoolsfinder). In September 2010 the school became the Co-operative Academy at Brownhills with sponsorship from Co-operative Travel in conjunction with Staffordshire University and Stoke-on-Trent College. The academy has places for 1,050 pupils aged eleven to sixteen and also has provision for post-sixteen studies. In 2012, the original 1927-29 school building is to be demolished and new academy buildings built on the same site (Building Schools for the Future).

4.0 Methodology

4.1 The building recording was carried out between the 10th and 13th August 2010 in accordance with the methodology outlined in a Written Scheme of Investigation (WSI) produced by Stoke-on-Trent Archaeology (Goodwin 2010). The survey work comprised

a photographic record, which included the context of the building, external views, internal views and significant details. Photographs were taken on 35mm monochrome print and with a digital camera, using 2.0m, 1.0m and 0.25m scale bars as appropriate. A location plan for the plates used within this report is provided in Fig.12
A measured survey using 30.0m and 5.0m hand tapes, and a Leica Disto D2 was undertaken to check and supplement existing plans supplied by the developer. Field notes were made of all structural elements with particular attention to those providing evidence of alterations and additions. The archive is stored at The Potteries Museum & Art Gallery, Stoke-on-Trent, site code **BHS10.**

4.2 During the survey, each room/area was given an individual reference number (001 for the cellar, 100+ for the ground floor and 200+ for the first floor). These numbers are used in the descriptions below and are reproduced on the floor plans provided in Figs 9 and 10.

5.0 Description and analysis of the building

5.1.1 Brownhills High School was situated on the eastern side of Brownhills Road (Fig. 2). The original building was at the southern side of the modern complex, occupying a footprint of *c*.3,981m². It occupied a slightly elevated position, looking south over playing fields and out towards Westport Road.

5.1.2 The original school building was essentially arranged around a quadrangle, divided into two by a tall central hall (Fig. 9). The building was largely single storey, constructed in English bond with red bricks, the exception being a two-storey block in the middle of the southern range. Each range was topped with a hipped, grey tile roof, but these were separated by lower flat-roofed corridors which circuited the inside of the main quadrangle.

5.1.3 The outer face of the school was built in a neo-Georgian style with stone quoins and a stone plinth course. The windows had brick flat-arches with projecting key-stones and stone sills with projecting brick aprons below. The original window frames had been replaced with modern Upvc alternatives. The main doorways leading into the eastern and western ranges had stone surrounds with key-stones set through the architraves and

were hung with 3-panel double-doors with glazed, reticulated upper panels (Plate 5). Further decoration was confined to the central bay of each range, each differing slightly.

5.1.4 The most decorative element of the building was the central two-storey part of the southern elevation, forming the original formal entrance (Fig.11, Plate 1). The original doorway, which had been partially blocked for conversion into a window, was topped with a Georgian-style fanlight and was surrounded by a stone pedimented doorcase. Consoles on either side of the doorcase supported the pediment. Stone steps and balustrade led up to the former doorway. The first-floor window above the entrance was circular and had a stone surround with a projecting key-stone. The eaves of the two-storey block were dentilated and a central segmental pediment, bearing a ribbon-decoration cartouche with the date '1928', rose above them crowning the whole. Two stone plaques, set below window level on either side of the doorway, commemorated the laying of the foundation stone (Plate 2) and the formal opening of the school (Plate 3).

5.1.5 The western range had a much plainer façade than the southern range (Plate 4). A modern entrance, in pared-down Classical style, had been constructed in the middle of the range. The new entrance, distinct for its light-red brick colour, comprised three doorways each with a plain fanlight at its head and separated by brick piers. It had replaced both of the double doors (Plate 5) at each end of the range (the northernmost of which had been bricked up) and the original formal entrance in the southern range.

5.1.6 The central bay of the northern range was made grander by means of a false-front extending above the eaves (Plate 6). The false-front was decorated with scrolled skew-blocks at eaves level on either side. It also served a practical purpose, allowing sufficient height for three tall segmental-arched windows to be positioned in the bay. The symmetry of the elevation was broken with a varying size and number of windows at each end of the range, possibly resulting from the differing forms and functions of the rooms behind. A modern single-storey, flat-roofed brick structure, linking the original building with the newer extensions, had been built against the elevation on the west side of the central bay.

5.1.7 A three-sided canted bay projected from the centre of the eastern range (Plate 7). A

single wooden door with a glazed upper panel in the front of the bay was approached *via* a short flight of stone steps. The doorway was flanked by a window on either side and a square fanlight was located above it. Windows were also located in each side of the bay. The double door at the north end of the elevation now opened onto a link between the original building and a newer block to the east.

5.1.8 Within the courtyards the building had a much plainer appearance. The elevations viewed from the eastern courtyard remained in almost original condition and the relationship between the main ranges and the lower flat-roofed corridors could clearly be seen (Plate 8). Windows placed above the corridors allowed natural light into the main ranges from the interior as well as from the exterior of the quadrangle. The windows looking out from the corridors had wooden sash frames and those at the high level had wooden-framed hopper-light openings. Both types of window had concrete lintels and the corridor windows had stone sills. A wooden door with a glazed upper panel opened out into the courtyard from the middle of each corridor range. The courtyard was used as a flower and vegetable garden with seating areas.

5.1.9 The central hall formed the west side of the eastern courtyard (Plate 9). Double-height, although single-storey, it had tall semicircular-arched windows with projecting key-stones and stone lintels. The wooden-framed windows had hopper-light openings towards the top. A similar window was seen in the link between the hall and the south range. The hipped roof was topped with a domed lantern decorated with Doric style columns at each corner. The oval louvered panels on each side of the lantern suggested its purpose was ventilation.

5.1.10 The western courtyard had been much reduced in size by the construction of a new block which extended around its north, east and south sides. The new building was constructed with glazed units in metal frames supported on a sill of red bricks in stretcher bond (Plate 10). The glazed units incorporated top-hung casement openings and sliding doors on each side of the courtyard. The block was covered with a corrugated-metal pitched roof. A small extension of the same construction had also been added to the east side of the west range, effectively creating a large bay window with a view onto the ornamental planting within the courtyard. The construction of the new block had

necessitated the partial blocking of the windows on the west side of the hall.

5.2 The ground floor (Fig. 9)

5.2.1 Access to the original Brownhills High School building was on the west side of the quadrangle, via the modern entrance and reception (100) off Brownhills Road. As the side of the building nearest the road it is likely that the doorways at either end of the range had previously been the entrances used by pupils and staff on a day to day basis. Once within the building, all the rooms were reached via the corridors ranged around the inside of the quadrangle. Corridors 103 and 104 (Plate 11) were both on an east-west alignment on the north and south sides of the building respectively. External doors at either end of corridor 104 provided through access. The same arrangement had been modified in corridor 103 with the blocking of the western door (and conversion of the space into store cupboard 110) and with the construction of the link to the modern part of the school on the other side of the eastern door. North-south aligned corridors 101 and 102, on the west and east sides of the building respectively, completed the circuit. The corridors were finished with brown-glazed tile dados and parquet floors. A third north-south aligned corridor (105), within the modern structure occupying the western courtyard, provided a link across the middle of the building.

5.2.2 Eleven classrooms of identical plan were identified on the south, east and west sides of the building; classrooms 121 (Plate 12) and 123 were located off corridor 102, classrooms 124 to 127 and 134 to 137 off corridor 104 and classroom 139 was located off corridor 101. These were all finished with brown-glazed dados and parquet floors (some carpeted over) as in the corridors. Picture rails survived in all the classrooms. Internal fixed-light windows, with the lower panes in obscured glass, allowed additional light into the rooms. The upper halves of the classroom doors were also glazed. The classrooms were all heated with radiators, with many of the original cast-iron type remaining.

5.2.3 It is probable that the entrance lobby 100, reception area 106 and office 107 had originally formed classrooms. Rooms 106 and 107, formerly one room of the same layout as the classrooms described above, had been divided by a stud-partition wall. In addition to this the north wall in room 107 had been knocked through in order to insert a

door into room 109 and an internal window to light room 108. The south wall of room 106 had also been opened out to form an ancillary space to the entrance lobby 100. No original features survived in the entrance lobby. As was evident from an examination of the exterior elevations, the west side of the room had been entirely rebuilt (**5.1.5**). The room had also been enlarged by removing the east wall and opening it out into corridor 101. The new space had been enlarged further by the insertion of a glazed bay in the east wall (**5.1.10**). The dimensions of the entrance lobby, however, suggested that it was formerly one of the classrooms and this was confirmed by school staff (A. Stanier pers. comm. 2010).

5.2.4 Besides the basic type of classroom described above there were several rooms designed as science laboratories. Postcards depicting the original interior of the building remain in the school's possession. They were produced by Marshall, Keene & Co., who traded under that name until the early 1930s (Sussex Postcards), and may date to the opening of the school building in 1929. These postcards indicate that room 115 was intended as a physics laboratory (Fig. 6), room 117 as a chemical laboratory (Fig. 7) and room 122 as a botany laboratory (Fig. 8). These all remained as science laboratories and the basic layout had been little altered between 1929 and the time of the survey. The tiled dados visible in the postcards, had, however, been removed. Rooms 115 (Plate 13) and 117, located off corridor 103, had similar layouts to the basic classrooms although they were a little longer. In room 115 the westernmost doorway (with a modern flush door) was a later insertion, having replaced a corridor-window. The same alteration to a corridor window was made in room 117 order to insert the western doorway. Both rooms were furnished with island work-units containing sinks and gas taps, and with benches fixed along their northern and western sides.

5.2.5 A preparation room (116) built with glazed partitions was located on the north side of the building between 115 and 117, making access between the two possible. A blocked door in the south wall of room 116 indicated that access to cupboard 116a had previously been possible. The *c.*1929 postcard showing room 115 (Fig. 6) revealed that access into the cupboard had also been possible from this room, but no traces of the blocked door were identified during survey. An alternative doorway to cupboard 116a had been inserted in the south wall providing direct access from corridor 103. A similar

arrangement of office and cupboard, rooms 118 and 119 respectively, was located between rooms 117 and 120. As in room 115, evidence for a former doorway from 117 into 119 was derived from the *c*.1929 postcard of the room (Fig. 7) but nothing was visible on site.

5.2.6 Room 120 at the east end of corridor 103, was probably used in conjunction with rooms 115 and 117 as suggested by a blocked door between room 120 and office 118. The room was originally a lecture theatre fitted with raked seating (A. Stanier pers. comm. 2010), but at the time of survey room 120 was being used as a computer suite. Three windows of uneven height and width lit the north side of the room. A false ceiling had been inserted into the room, but this was sloped up to the window heads to allow in maximum light. Entry into the cupboard 119 was via room 120 only.

5.2.7 Room 122, located off corridor 102, was the original botany laboratory (Fig. 8). Unusually it had two original doorways from the corridor and external access via the bay. The bay formed a separate porch accessed through a half-glazed door with an internal fixed-light window to either side. Given 122's original use, the well-lit, east-facing aspect of the porch may suggest it was used as a conservatory as well as providing external access to lessons based outdoors. The room had been slightly altered with the construction of a walk-in cupboard in the north-west corner. At the time of survey 122 was furnished with work benches along the northern and southern sides and with four island work-units containing sinks and gas taps in the middle of the room.

5.2.8 Room 114, at the north end of the assembly hall was used as a music room at the time of survey (Plate 14). The room differed from the other classrooms in having a dado surface lined with wooden tongue and groove boards rather than glazed tiles. The central location of this room along with the provision of a fire-place may suggest former use as a staff room. Alternatively the large north-facing windows would have given a good even light, making the room suitable for use as an art room. Room 114 had been modified with the construction of a server cupboard in the south-west corner and with the blocking of the arched window heads.

5.2.9 The assembly hall and the head teachers offices were all placed centrally in the

building, providing a focus for the school in the case of the former and optimum accessibility to all other rooms in the case of the latter. The hall, 140, was finished in a much more ornate style than most other rooms in the building (Plate 15). It had a plaster barrel-vaulted ceiling with ornamental ribs decorated with a bay-leaf garland edged with bead-and-spindle moulding. The ribs were supported by engaged-piers with scrolled consoles at the heads. The ceiling cornice had a leaf-and-dart moulding and the window architraves were decorated with coin moulding. The lower third of the walls was lined with dark-stained wooden panelling and the wooden door surrounds copied the design of the stone surrounds seen on the external doors. The original radiators had been disguised with wooden box covers. The room had a parquet floor and a wooden stage was located at its southern end. A lectern, with the inscription, 'Presented to Brownhills High School in memory of William Walker Esq. J. P., Mayor of the City of Stoke-on-Trent 1926-7', and a chair, with a plaque attached which read, 'Presented to Brownhills High School by the old girls' association 1922-43', furnished the stage. Five large boards on the northern wall recorded the names of the girls who had achieved honours at college and university (Plate 16). Access to store-room 142 had originally been *via* a blocked doorway, still visible in the middle of the north wall. A new doorway to the store-room had been inserted in its eastern wall, allowing more direct access from corridor 103.

5.2.10 The head teacher's office (131) and the assistant-head teacher's office (129) were located to the south of the assembly hall off corridor 104 and to either side of the original formal entranceway, now divided into a small office (130) and a lobby (130a). The original width of corridor 104 had been reduced at this point by the construction of storeroom 141 on the south side of the assembly hall. This part of the building was made distinct by having a black and white tiled floor in a chequer-board pattern which extended from corridor 104 outside the hall and into lobby 130a (Plate 17). The dado in the corridor was finished with blue tiles with a black and white chequer-board band at the top, rather than the brown-glazed tiles used elsewhere. These finishes were not visible in room 130 and had most likely been altered when the space was transformed from an entranceway into an office. The ornate doorcase surrounding the original doorway was still visible in the south wall of room 130.

5.2.11 Rooms 129 and 131 were south-facing, each with a chimney breast on the wall

opposing the door. The original dark-stained wooden four-panel doors remained in each room. The head teacher's office (131) (Plate 18) was slightly smaller than the assistant-head teacher's office, space being occupied with the stairs to the first floor and under-stair cupboard on the north side of the room and with en-suite toilet facilities (132) on the west side of the room. The original fireplace in room 130 had a dark-stained wooden mantelpiece with mirrored overmantel. A dark-wood glazed bookshelf had been fitted against the wall on the south side of the chimney breast. The ensuite toilet (132) retained original white tiles with a decorative Greek-key pattern boarder at the top and had a parquet floor.

5.2.12 Rooms 112, 112a and 113 had been more substantially altered than most other rooms in the building. At the time of survey these functioned as a large science classroom (112) with an adjoining computer room (112a) and preparation room (113). Rooms 112a and 113 were separated by a stud-partition, probably a later insertion. Stub walls carrying an east-west aligned beam at the west end of room 112 indicated that the room had been created from more than one space. A row of three blocked doors in the south wall of room 112 were visible from corridor 103 (Plate 11). Two further blocked doors were seen in the south walls of room 112a and 113. Both the blocked doorways and those doors still in use were wider than a standard single door, indicating that ease of access from corridor 103 was of importance in the original use of this area. The proximity of rooms 112 to 113 to a main entrance along with the wide doorways designed for heavy traffic would tend to suggest that this area was originally contained the cloakrooms, perhaps divided into separate narrow stalls as indicated by the division at the west end of room 112. External access to room 112 was also possible *via* a door set within the same aperture as the easternmost window. A similar door set within the west window aperture had been bricked-up. Access to the newer part of the school had been created with the insertion or modification of a door in the north wall of room 112a.

5.2.13 Room 111, in the north-west corner of the building, was used as a staff room. It had originally been divided into two rooms; one large space to the east with a smaller area to the west. The dividing wall between the two remained, albeit with a large opening inserted. The lack of separate access, or evidence for this, indicated, however, that the west room had been a subsidiary to the larger room. The door seen at the time of

survey was a later insertion, original access to the room having been from 110 prior to its conversion from entranceway/corridor to store cupboard. The provision of a fireplace in the room may suggest its original use by staff rather than pupils. The location of the room between one of the main entrances and the probable cloak room (112, 112a and 113) may also suggest supervision of the children as they entered and exited the building.

5.2.14 Room 138, next to the entrance at the west end of corridor 104, may also have been used to supervise pupils as they came and went. At the time of survey it was used as an office with a partition at its western end to form a small store. Offices 108 and 109, next to the former entrance at the western end of corridor 103, originally formed one room mirroring 138. Current access to the room was from room 109, but access prior to this was presumably from 103/110 although no structural evidence for this was identified.

5.2.15 Rooms 128 and 133, off corridor 104 on the south side of the building, used as a toilet and as a cleaner's cupboard respectively, are likely to have changed little in use. An east-west partition had been constructed across the middle of room 128 in order to create a disabled toilet cubicle and ante-room. Although the arrangement has been slightly altered, the use of the room is likely to have remained as originally intended. The two small windows in the south wall may suggest that the room was formerly partitioned into two cubicles.

5.2.16 Modern additions to the building, added to the western courtyard *c.*1988 (A. Stanier pers. comm. 2010) included a library (143) (Plate 19) on the south side of the courtyard and two interconnected art rooms (146 and 149) on the east and north sides of the courtyard respectively. The steel roof trusses, supported by steel pillars could be seen within these larger rooms. Corridor 105 occupied the eastern side of the structure. Female toilets were situated on the north side of the courtyard in rooms 148, 152 and 153 and male toilets were situated on the south side in room 145. A medical room (154) and two offices (155 and 156) were also located on the north side of the courtyard.

5.3 The basement (Fig. 10a, Plate 20)

5.3.1 The basement in Brownhills High School was confined to one room on the north

side of the building, below 114. The room had separate access from the yard on the north side of the building. The walls were grey painted brick, the floor was blue brick and the ceiling was concrete, supported on north-south aligned steel beams. The room was divided into three spaces on its north side; the coal chute in the north wall of the western division suggesting the room's original use as a coal store and probably a boiler room. A blocked aperture of unknown use was situated in the north wall within the eastern division. Two windows in the north wall, one glazed, one with wooden louvers, provided some natural light to the central part of the room. The brick support for the chimney-breast in room 114 above projected out from the south wall. At the time of survey the basement contained a central heating pump and hot-water tank and was being used as a store.

5.4 The first floor (Fig. 10b)

5.4.1 The first-floor section of the school was located above the head teacher's and assistant-head teacher's offices (rooms 131 and 129 respectively) on the south side of the building. The arrangement of the rooms mirrored that seen on the floor below. The hall (200) at the head of the stairs opened into rooms 201 and 203, each with two south-facing windows and with a chimney breast on the external wall. The original wooden four-panel doors survived in both these rooms. Cupboards were built into the recesses on both sides of the chimney breast in room 202. The room was furnished with tables separated by screens. Room 203 was lit by two further windows on the north side of the room, each retaining its original wooden sash frame and secured with metal bars. At the time of survey the room was used as a learning suite and fitted with computer benches. Room 202 comprised a small office between 201 and 203 and was separated from the hall with a glazed partition. A sink unit had been fitted below the window, providing a small kitchen area for the room.

6.0 Phasing and discussion

6.1 Phase 1: 1927-1929

6.1.1 Brownhills High School, or Tunstall High School for Girls as it was known prior to its move from the Tunstall Victoria Institute to the purpose-built school building at Brownhills, was one of the first schools to be established in Stoke-on-Trent following the end of the First World War. This can be seen in the context of oversubscribed secondary

schools and poor attempts to cater for higher education in elementary schools. Recognising a need for schooling for older or more advanced children, the Education Acts of 1918 and 1921 had made the provision of higher education through central schools or elementary school senior departments a requirement. Between the years 1917 and 1927 the number of pupils in secondary education had risen from 60,000 to 367,000. Much pressure was put onto local grammar schools as a result, perhaps informing the Stoke-on-Trent Education Committee's decision to found the school. A gradual push for a separate secondary education system was made, culminating in the Hadow report of 1926, which called for education in separate primary and senior schools with a break between the two at the age of 11 (Seaborne and Lowe 1977, 123). Most of the schools established in Stoke-on-Trent after Brownhills High School for Girls, resulted from the re-organisation recommended by the Hadow Report which took place in the city between 1929 and 1932 (Young 1963, 311-327).

6.1.2 The new, purpose-built school at Brownhills was designed by the Stoke-on-Trent Education Committee architect S.B. Ashworth. The specialist school architects employed by local education committees were able to build up and work from a corpus of knowledge on the design and construction of educational buildings (Seaborne and Lowe 1977, 3). At a national level various regulations were put in place by the Board of Education, particularly relating to lighting, ventilation and room size. Continuing work begun in the early 1900s, there was also a more general attempt to provide cheerful buildings which would help to improve children's health, vigour and efficiency (Osborne Smith 1921, 101). These attempts were constrained, however, by periods of economic depression throughout the interwar period (Seaborne and Lowe 1977, 121)

6.1.3 The above considerations were taken to the extreme in the concept of open-air schools, first introduced to England in 1907 (Seaborne and Lowe 1977, 65). The children were taught in separate buildings or shelters, the sides of which could be opened out, or in the open air in milder weather. More often, however, buildings were constructed as single-storey pavilions built around courtyards or as wings off a central block: a design first established in Staffordshire in the early 1900s by J. Hutchings the county architect, in conjunction with George Reid the county medical officer (Seaborne and Lowe 1977, 75). Schools of the pavilion design were able to achieve good lighting

and ventilation by arranging classrooms on one side of a corridor only and often by replacing corridors with external verandas (Franklin 2009, 25). The design tended to be favoured as a relatively cheap way in which the Board's requirements could be met (Seaborne and Lowe 1977, 121).

6.1.4 The Brownhills High School building was amongst the first schools to be constructed in Stoke-on-Trent after the First World War. Built between 1927 and 1929, it is first apparent on the 1937 Ordnance Survey (OS) map (Fig. 3). The long duration of the building work, and indeed the gap between the purchase of the land in 1923 and the commencement of work, may perhaps be explained by economic recession during this period. In 1922 funding to education had been cut and the Board of Education (overseeing education on a national level) restricted the number of new schools to be built. Where new building was sanctioned, the Board encouraged local authority education committees to undertake phased programmes of building, spreading the cost of works over several years (Seaborne and Lowe 1977, 112).

6.1.5 The school building was a forerunner to the schools built as part of the 1929-32 Hadow re-organisation and the Stoke-on-Trent Education Committee may have used it as something of a model for these later buildings. The actual number of schools built as a result of re-organisation were relatively few; of the 34 secondary and sixteen junior/infant schools established in the inter-war period only seven secondary schools and twelve junior/infant schools had new premises built for them, the rest making do with pre-existing school buildings (Young 1963-327). Brownhills High School was arranged on a courtyard plan popular at the time, which was later used for Meir C.S. School (1931), Oak Hill C. S. School (1932), Manor C.S. Girls' School (1932) and Edensor C.S. School (1932). The courtyard plan was a relatively compact way of arranging different ranges or wings and also provided a sheltered area for pupils to enjoy the outdoors. The division of the courtyard into two with the assembly hall (also employed at Edensor) ensured ease of access from all parts of the building and made it the focal point of the school. The corridors circuiting the inside of the courtyards provided access throughout the building and being lower than the main ranges also allowed windows to be placed on both sides of each room. Lighting and ventilation in the main ranges was further achieved with internal windows and glazed doors, although

the use of obscured glass in the lower pains of each allowed some privacy. The building was heated by a boiler in the basement with radiators in each room. Fire-places were largely confined to rooms used by staff alone with the exception of room 114. All the corridors and classrooms within the school had polished parquet floors and glazed tile dados (Plates 11 & 12), both durable and easily cleaned materials (Osborne Smith 1921, 104). It is likely that other rooms in which the children were taught were finished in the same way, as the *c*.1929 postcards (Figs. 6, 7 & 8) illustrate in the case of the physics (115), chemical (117) and botany (122) laboratories.

6.1.6 The main access to the building used by the pupils was probably via the doors at either end of the west elevation (Plate 5). These entrances were in contrast to the rather more formal entrance in the centre of the main public façade on the south side of the building (Plate 1), leading directly to the head and assistant head teacher's offices (129 and 131). Entrance and exit of the building may have been monitored from rooms 138 and 108/109 next to the main doorways. The row of wide doorways (subsequently blocked) in the southern wall of rooms 112, 112a and 113 suggests this area was formerly cloakrooms, possibly divided into eight separate stalls. The door and blocked door in the north wall of room 112 indicate that there was also external access to this space. Evidence for other such doors may have been obscured by the addition of the newer building to the north. As cloakrooms allowed damp coats and boots to removed and dried, adequate ventilation was of importance. They also reduced the amount of dirt brought into the building on boots (Osborne Smith 1921, 102). At Brownhills the girls had to wear indoor slippers whilst in school (City of Stoke-on-Trent Education Committee 1929, 9). Room 111 may be a candidate for the waiting room mentioned in *The Staffordshire Evening Sentinel* article describing the new school, given its proximity to one of the main entrances on the west side of the building (The Staffordshire Evening Sentinel 1929, 5).

6.1.7 In plan, the corridors that extended around the building appear to offer free access throughout the building, although the cloakroom area likely formed a 'bottleneck' at busy times. In practice the children were discouraged from crossing the black and white tiled area between the assembly hall (140) and the entrance hall (130/130a); instead having to go around the long way to get to classes (A. Stanier pers. comm. 2010).

Whether this restriction was intended by the architect or, as is more likely, was imposed by the staff as a discipline is unclear.

6.1.8 The layout of the general purpose classrooms was designed to improve the alertness and efficiency of the children. As described above (**6.1.5**) windows were placed on both sides of the room to allow maximum lighting and ventilation. The children would have been arranged with the external windows on their left-hand side, assuming that most children are right-handed and that this would provide best illumination for their work. These windows were set at the standard minimum of 3 feet 6 inches above the floor, allowing a view of trees and shrubs, whilst avoiding distraction resulting from sight of games in the playing fields or of passers-by in the street beyond (Osborne Smith 1921, 105).

6.1.9 The provision of specialised classrooms, such as science laboratories and art rooms was strongly recommended by the 1926 Hadow Report (National Union of Teachers 1960, 11). These specialised classrooms were often grouped together in the same part of the building (Seaborne and Lowe 1977, 116). At Brownhills, the physics (115) and chemistry (117) laboratories, identified with the help of the *c.*1929 postcards (Figs. 6, 7 & 8), were arranged on the north side of the building. Room 120 was originally a lecture room and the link between it and rooms 115 and 116 suggests that it was used in conjunction with these rooms. The preparation room (116) is unlikely to have changed use, suggesting room 118 was originally used as the balance room described in the new school (The Staffordshire Evening Sentinel 1929, 5). The botany laboratory (122), with its conservatory, was probably situated at a little distance from the other laboratories so as to enjoy a sunnier east-facing aspect. The art room is most likely to have been located in room 114, the large north-lit windows providing a good even light (Plates 6 and 14). Domestic Science was taught in the domestic centre within Brownhills Hall. The provision of a Gymnasium, also a recommendation of the Hadow Report 1926, was postponed until the planned for extensions could be built (The Staffordshire Evening Sentinel 1929, 5).

6.1.10 The 1937 OS map (Figs. 3 & 5) shows that the original school incorporated blocks projecting into the western courtyard from its southern and northern sides, probably

housing the toilets. These were often placed either at some distance to the building or in an annexe connected by a ventilated corridor or covered way. In some schools attendants were employed to supervise the children and to keep the sanitary fittings in order (Osborne Smith 1921, 102). The remaining facilities required for the school, such as dining rooms, library and staff room were located in the old hall (The Staffordshire Evening Sentinel 1929, 5).

6.1.11 Brownhills High School was designed in a neo-Georgian style popular in many secondary and local grammar schools (Fig. 11, Plate 1). This style was frequently used in an attempt to emphasize traditional values. Whereas higher education in elementary schools was often focused more on vocational skills, the secondary and grammar schools wished to distinguish themselves in providing a more academic education (Seaborne and Lowe 1977, 137). This ethos gave the schools prestige in the eyes of the local community and was reflected in the architectural styles chosen (The Stoke-on-Trent and District Association of the National Union of Teachers 1960, 11). The larger fee-paying public schools opted for the Gothic style, with all its implication of medieval foundation, but for the local secondary and grammar schools the neo-Georgian gave school buildings some stature, but could also be attained fairly cheaply (Seaborne and Lowe 1977, 142). The neo-Georgian style also lent itself well to the formal, symmetrical, pavilion plans popular in the inter-war period. In fact the layout of school buildings and the style of the façade were often unrelated; where more modern styles of façade where tried, usually in an attempt to use cheaper, more modern building materials, the same pavilion-style plans tended to adhered to (Seaborne and Lowe 1977, 143).

6.2 Phase 2: 1937-1950

6.2.1 The school was enlarged in this phase with a new block constructed to the north of the main building and to the west of the old hall, linked to each with corridors or covered walk ways. These are first illustrated on the 1950 OS map along with a separate block constructed to the east of rooms 123 and 124 in the main building (Fig. 4). These buildings may have accommodated the extra classrooms and gymnasium planned for even whilst the main building was being designed and constructed.

6.3 Phase 3: 1950-present

6.3.1 The school was significantly extended in this period, much work perhaps being undertaken as a result of the change to a mixed gender comprehensive in the early 1970s. Aerial photographs of the area show that a new block to the west of the original school building was constructed between 1950 and 1963. An aerial photograph of 1974 shows that, by this date, Brownhills Hall had been demolished, the 1950-63 block had been extended and another block had been built on the north side of the site. A late-20th-century block at the north-west corner, incorporating both classrooms and a dining hall, appears to have replaced that built in the same location in Phase 2. Within the original building most of the rooms had retained their original features and uses, the main alteration being the change in location of the main entrance from the south to the west side of the building and the consequent alteration of classrooms which took place *c*.1988 (A. Stanier pers. comm. 2010). The cloakrooms too had been dispensed with, and lockers introduced, allowing the space they once occupied to be changed into science classrooms. An extension within the western courtyard, also carried out *c*.1988, housed a new library, art rooms, offices and toilets. The light steel-framed construction of this extension meant little alteration to the main building however. Although some of the corridor doors and windows were blocked or modified and the windows on the west side of the hall were semi-blocked, the overall circulation around the building was not altered.

7.0 Conclusions

7.1 The building recording at Brownhills High School successfully identified the original functions of the rooms in the 1929 school building. The overall layout of the building had been little altered and many of the rooms were in their original form. Most significantly a new entrance hall had been inserted in the west range and a new block into the western courtyard.

7.2 The school was of typical design and layout for its time, featuring the well established and popular courtyard arrangement of pavilion buildings which allowed good lighting and ventilation of the classrooms. The provision of specialist classrooms for science and art was to be expected in a secondary school of this era. Perhaps because of the economic constraints local authority building programmes were subject to throughout the inter-war period, use was made of Brownhills Hall for further classrooms and a dining room. The provision of a gymnasium (like specialist classrooms a

recommendation of the Board of Education), along with more classrooms, was planned as a separate phase of building, possible due to a restriction of funds. In terms of the exterior design, the chosen style was neo-Georgian, again typical of this era and type of school, and reflecting the standing of the school not only as a secondary grammar, but as one of the first post First World War schools to be built in Stoke-on-Trent.

8.0 Acknowledgements

This report was written and illustrated by Zoë Sutherland for Stoke-on-Trent Archaeology. Fieldwork was carried out by Heather Ann Cope and Zoë Sutherland. Thanks are due to Noel Boothroyd (Stoke-on-Trent City Council Planning Archaeologist); Balfour Beatty Construction Northern; and to Andrew Stanier (Principal Delegate) and Malcolm Dundas of The Co-operative Academy at Brownhills.

Ordnance Survey data is reproduced with permission of H.M.S.O. License No.100024286.

9.0 References

Primary sources

City of Stoke-on-Trent Education Committee. 1929. *Brownhills High School, Stoke-on-Trent. Prospectus 1929-30.*

The Staffordshire Sentinel, 16th January 1922

The Staffordshire Sentinel, 13th June 1927

The Staffordshire Evening Sentinel, 19th March 1929

Secondary sources

Boothroyd, N. 2009. *Brief for Historic Building Recording: Former Brownhills High School, Stoke-on-Trent*. Stoke-on-Trent City Council.

Franklin, G. 2009. *Inner London Schools 1918-44. A Thematic Study*. English Heritage Research Department Report Series 43-2009

Goodwin, J. 2010. *Written Scheme of Investigation for archaeological Building Recording: Brownhills High School, Brownhills Road, Tunstall, Stoke-on-Trent*. Stoke-on-Trent Archaeology.

Mott MacDonald. 2009. *Brownhills Academy BSF. Phase 1 Contaminated Land Desk Study and Contamination Risk Assessment*. Stoke-on-Trent City Council.

Osborne Smith, J. 1921. 'Modern Day-School Buildings' in Searles-Wood, H.D. & Adams, H. (eds.) *Modern Building Volume III*. London: The Gresham Publishing Company Ltd.

Seaborne, M. and Lowe, R. 1977. *The English School its Architecture and Organization. Volume II 1870-1970*. London, Henley and Boston: Routledge & Kegan Paul.

The Stoke-on-Trent and District Association of the National Union of Teachers. 1960. *Education in Stoke-on-Trent 1910-1960*.

Warrilow, E.J.D. 1960. *A Sociological History of the City of Stoke-on-Trent*. Hanley: Etruscan Publications

Young, B. 1963. 'Schools' in J.G.Jenkins (ed.). *A History of the County of Stafford Volume 8*. London: Oxford Unniversity Press.

Internet Sources

Schoolsfinder <http://schoolsfinder.direct.gov.uk/8614028/school-profile/ >
[date accessed: 15.11.10]

Building Schools for the Future
<http://www.stoke.gov.uk/ccm/navigation/education/building-schools-for-the-future/the-co-operative-academy-brownhills/> [date accessed: 15.11.10]

Sussex Postcards < http://www.sussexpostcards.info/publishers.php?PubID=187> [date accessed: 15.11.10]

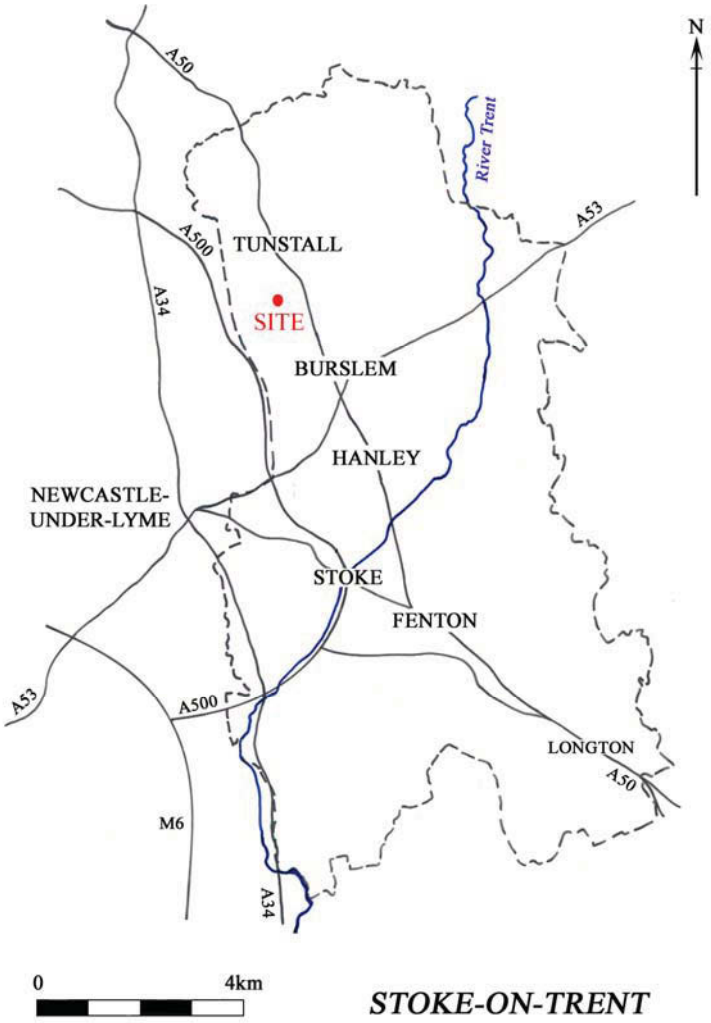
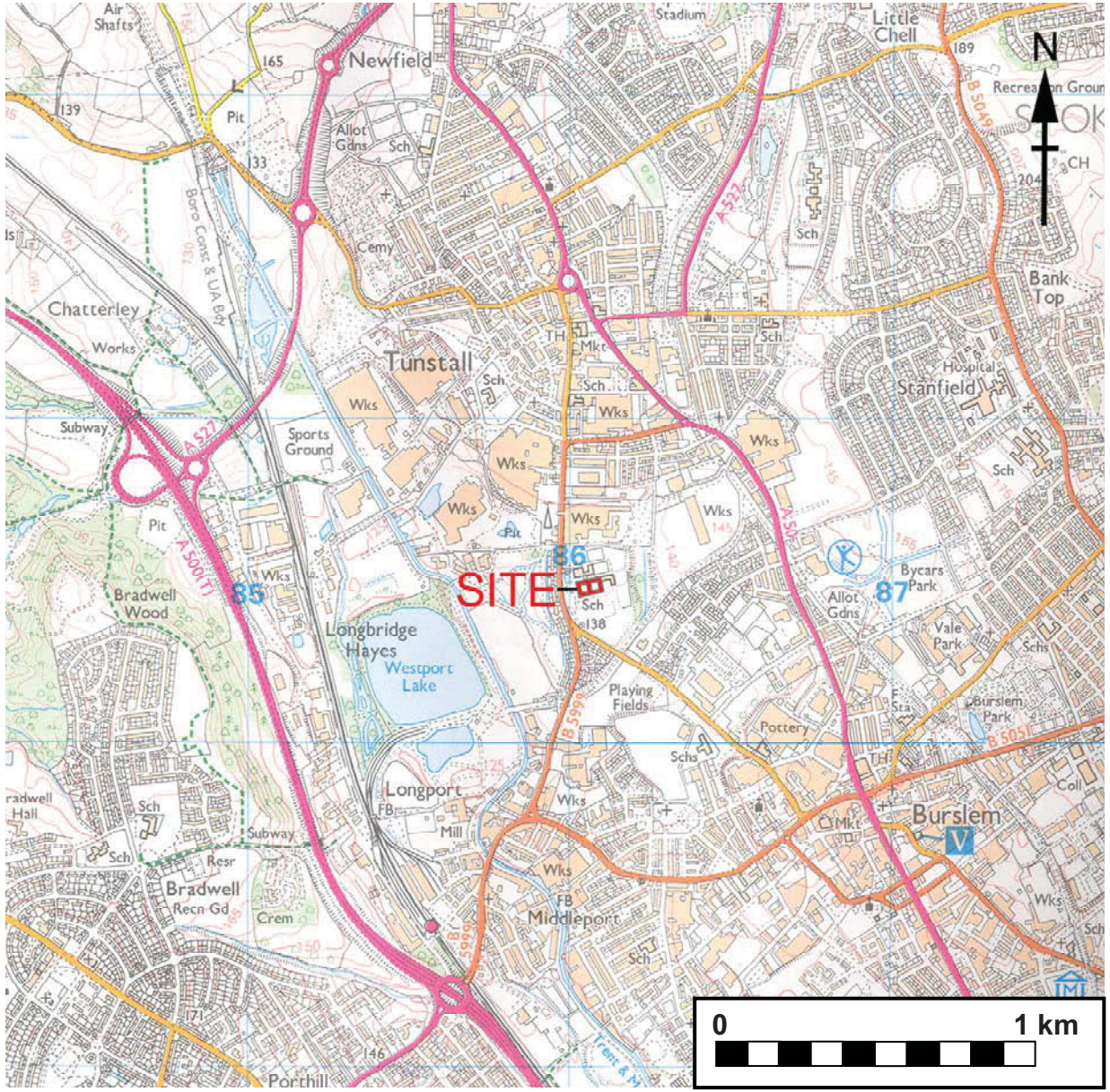


FIG. 1

Site location.



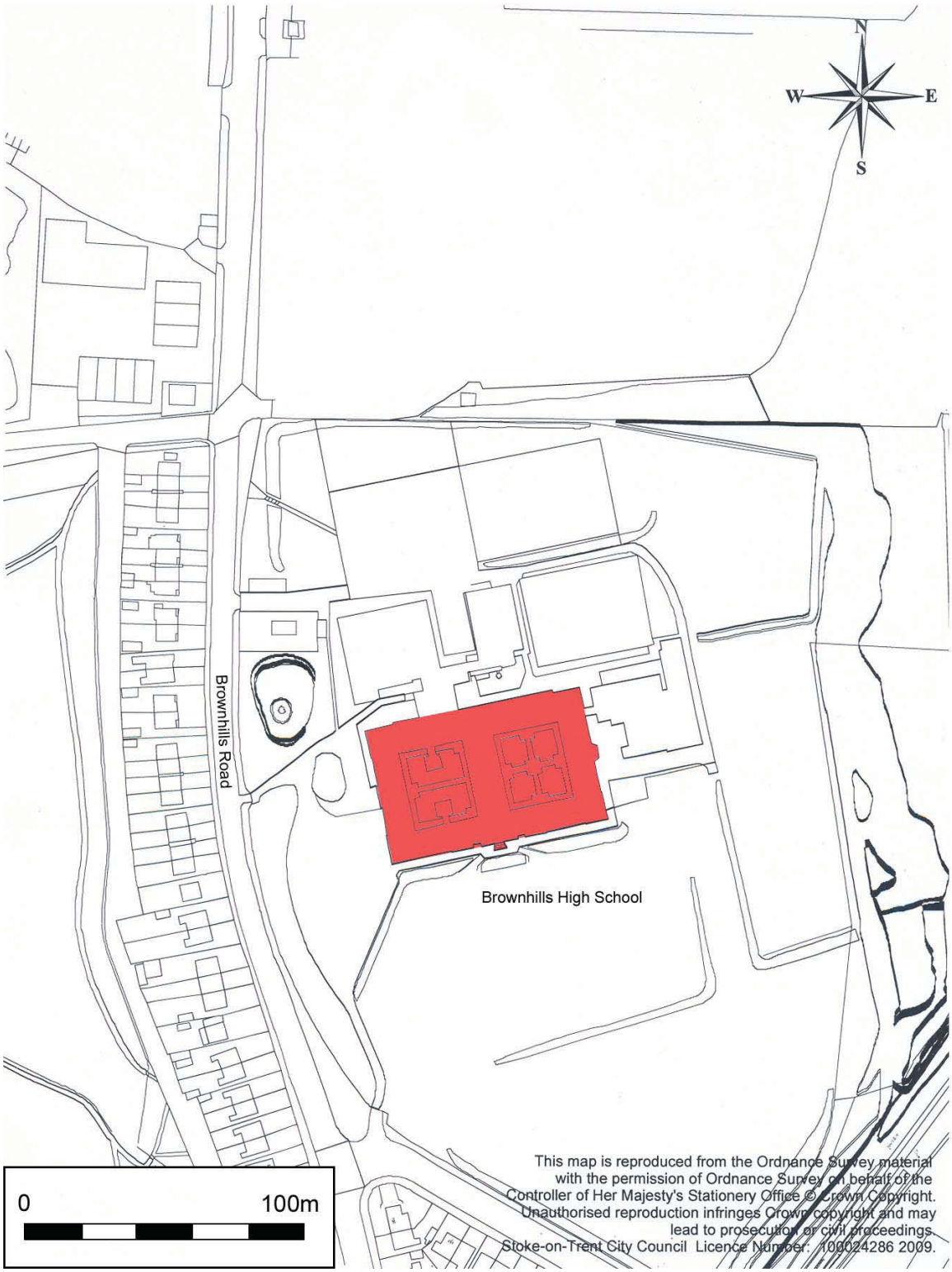


FIG. 2

Plan of Brownhills High School with the original building highlighted in red.

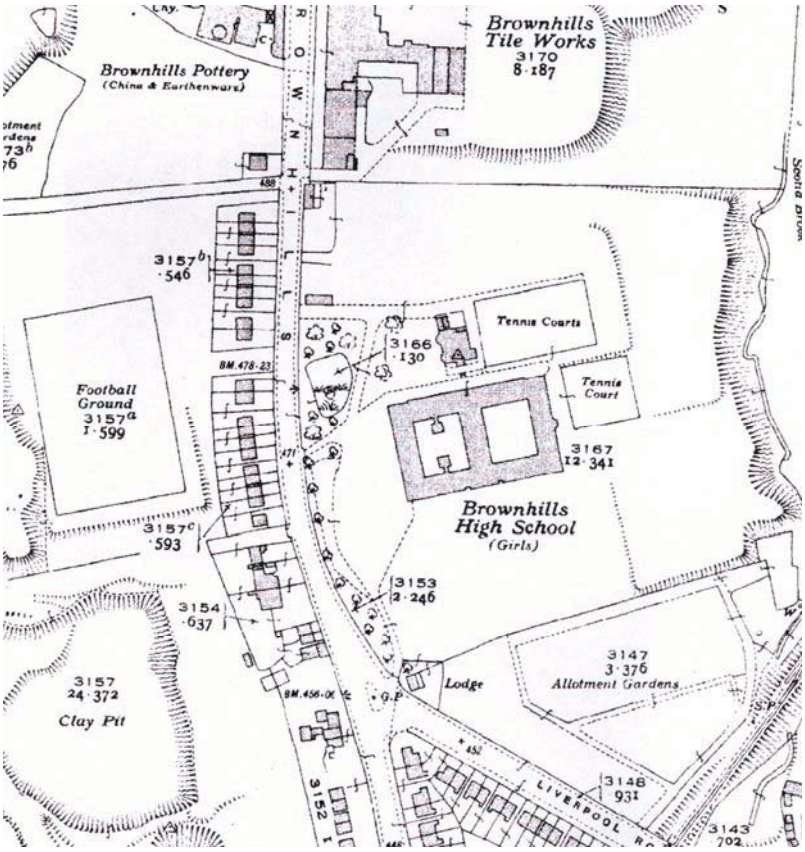


FIG. 3

Extract from the 1937 OS map showing Brownhills High School with the hall to the rear.

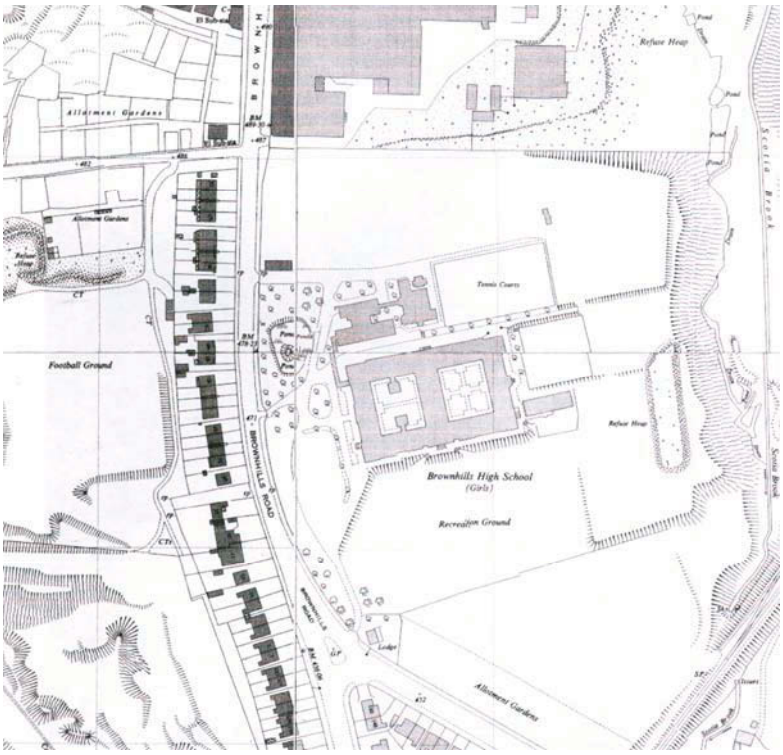


FIG. 4

Extract from the 1950 OS map showing the school with additions to the north and east.

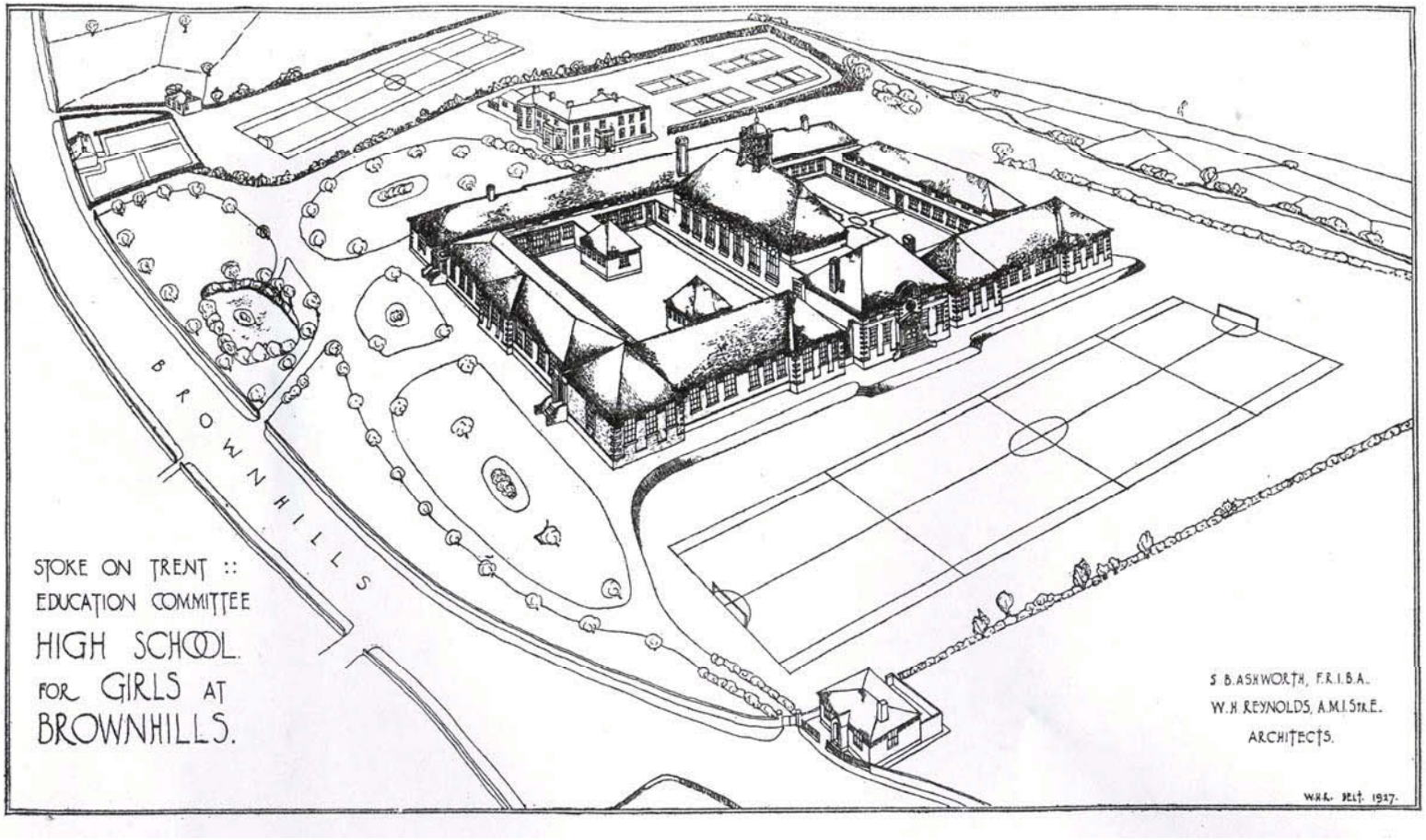


FIG. 5

Architect's drawing of the new school building.

(Taken from the programme for the Laying of Foundation Stone ceremony on 13th June 1927).

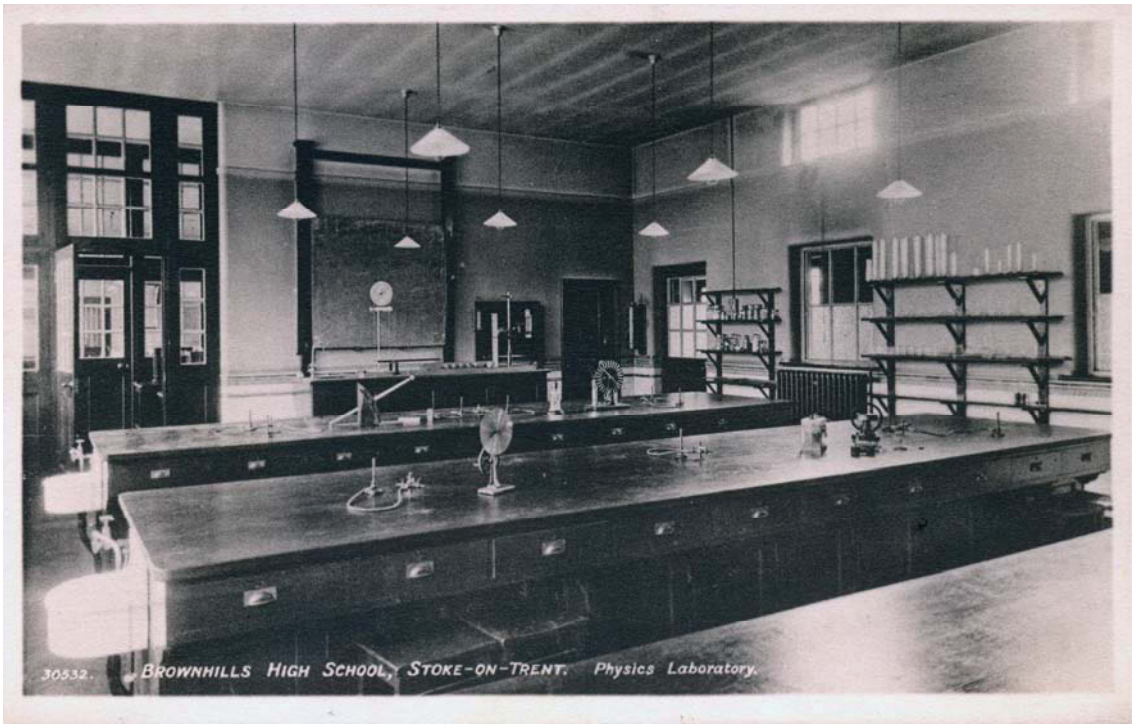


FIG. 6

c. 1929 postcard showing the Physics Laboratory (room 115).

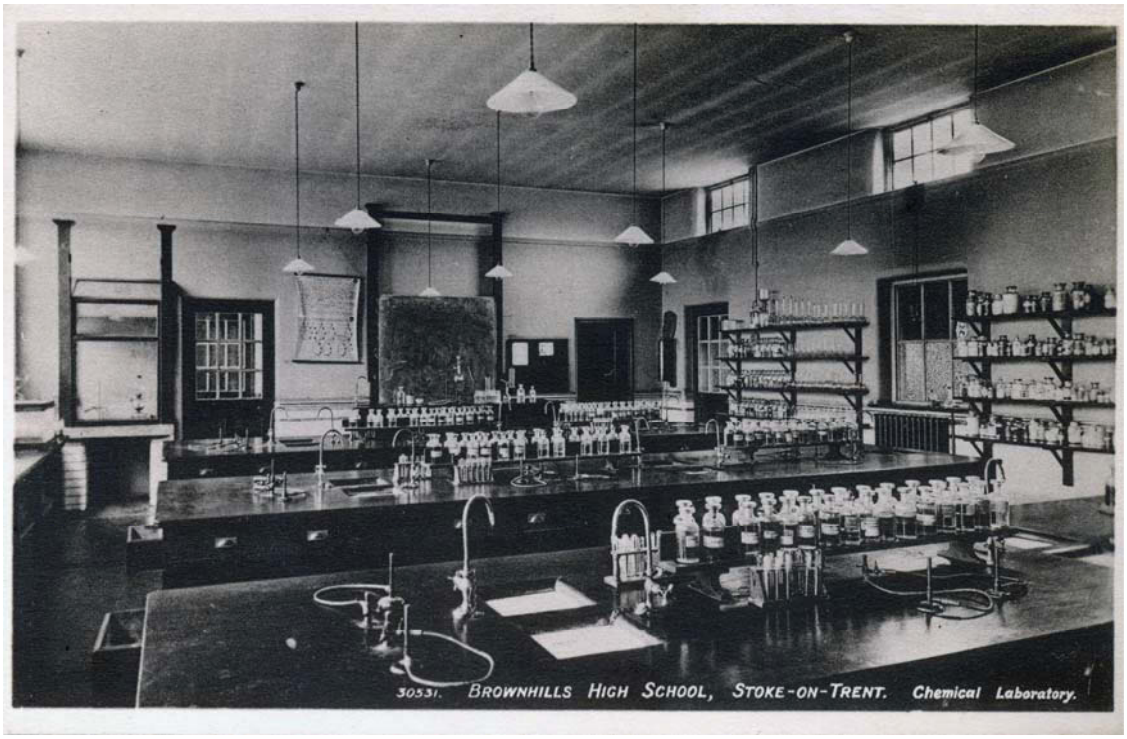


FIG. 7

c.1929 postcard showing the Chemical Laboratory (room 117).

FIG. 8

c. 1929 postcard showing the Botany Laboratory (room 122).

FIG. 9
South elevation of
Brownhills High School.

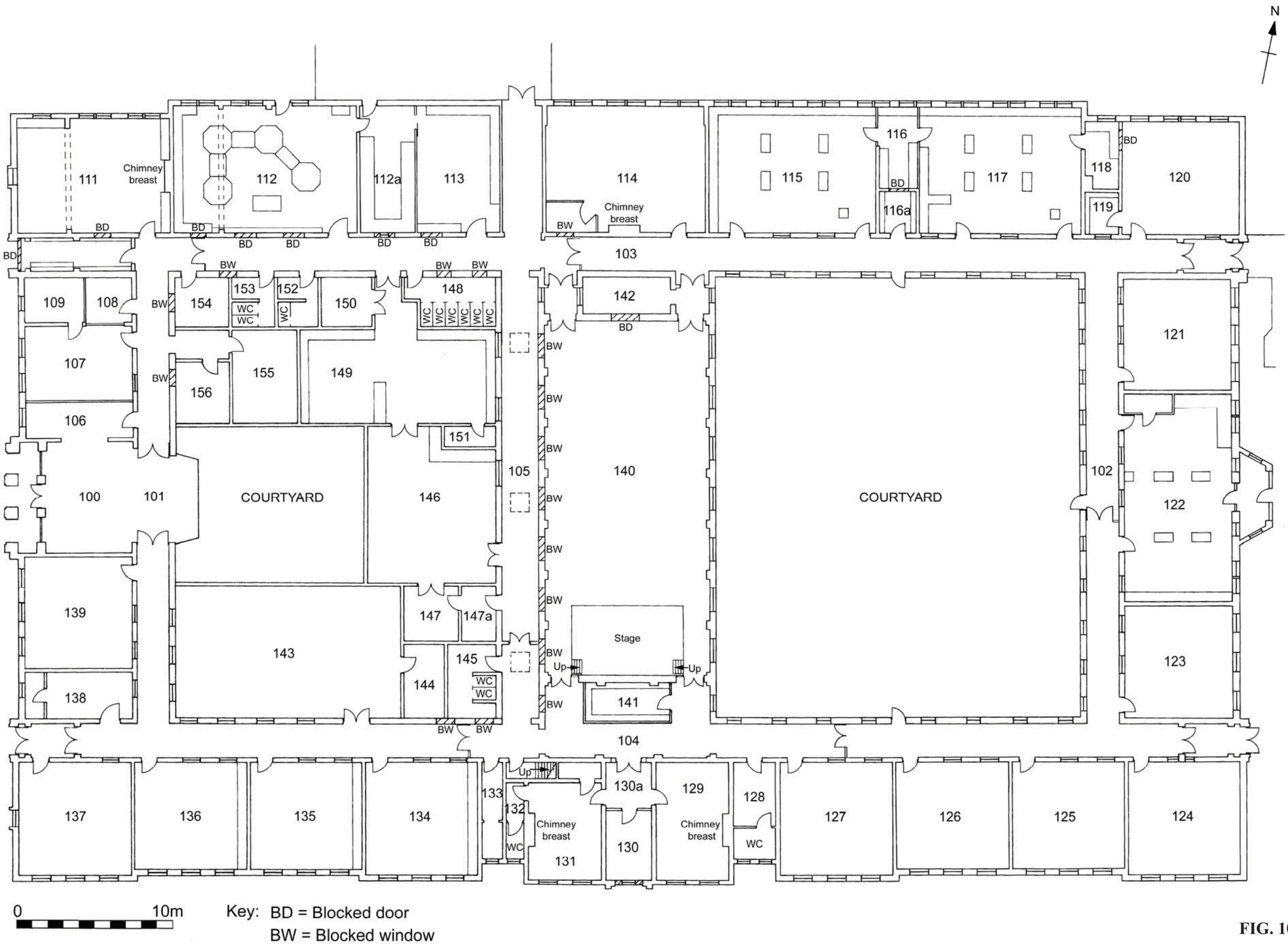
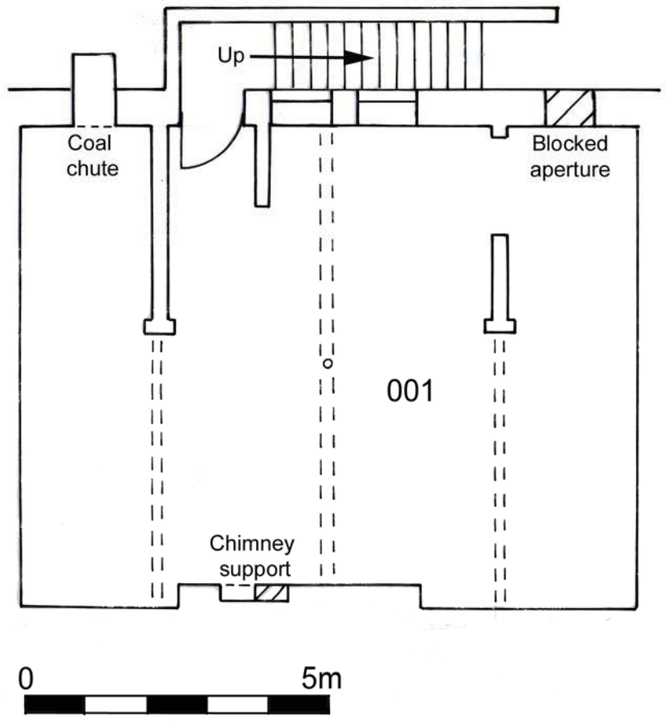


FIG. 10

Ground-floor plan of Brownhills High School.

a) Basement



a) First floor

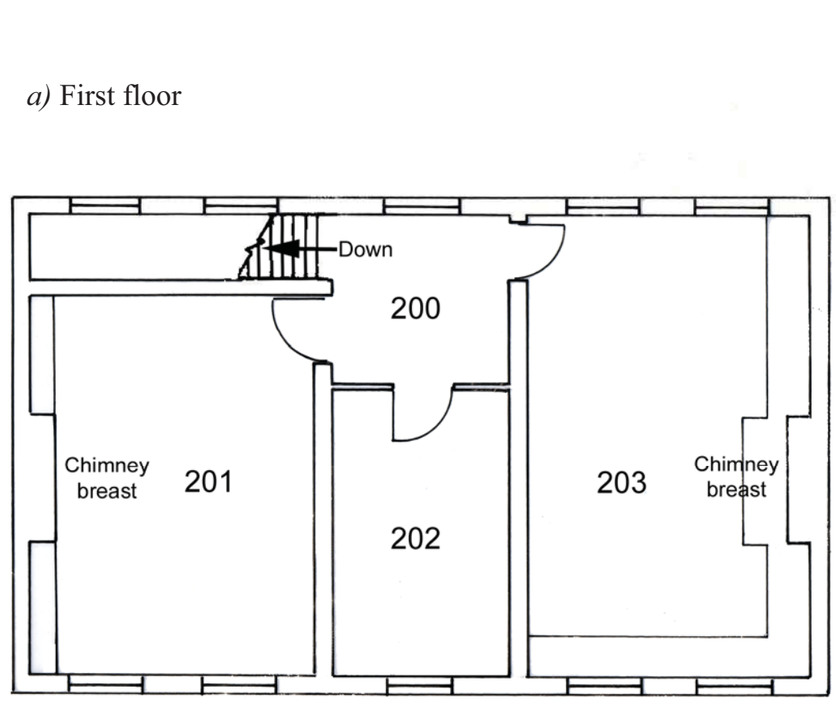


FIG. 11

a) Basement and *b)* First-floor plan of Brownhills High School.

FIG. 12

Plan of Brownhills High School showing the positions from which plate photographs were taken.

PLATE 1

The central bay of the south elevation showing the bricked up formal entrance (scales: 2.0m)

PLATE 2

The inscribed foundation stone.

PLATE 3

Inscribed stone laid at the formal opening ceremony for the new school building.

PLATE 4

The new entrance in the west elevation (scales: 2.0m).

PLATE 5

The double door at the south end of the west elevation (scales: 2.0m).

PLATE 6

The false-front in the middle of the north elevation (scales: 2.0m).

PLATE 7

The canted bay in the middle of the east elevation (scales: 2.0m).

PLATE 8

The eastern courtyard looking south.

PLATE 9

The east elevation of the assembly hall.

PLATE 10

The western courtyard, looking north.

PLATE 11

Corridor 103 looking east. The blocked doorways in the south wall of room 112 are visible on the left (scales: 2.0m).

PLATE 12

Classroom 121 looking west (scales: 2.0m).

PLATE 13

Room 115 (originally the physics laboratory) looking east (scales: 2.0m).

PLATE 14

Room 114 looking north (scales: 2.0m).

PLATE 15

The assembly hall (140) looking south (scales: 2.0m).

PLATE 16

The honours boards on the north wall of the assembly hall (scales: 2.0m).

PLATE 17

Black and white tiles in corridor 104 (scales: 2.0m).

PLATE 18

The head teacher's office (131) looking south (scales: 2.0m).

PLATE 19

The library (143) looking north-west.

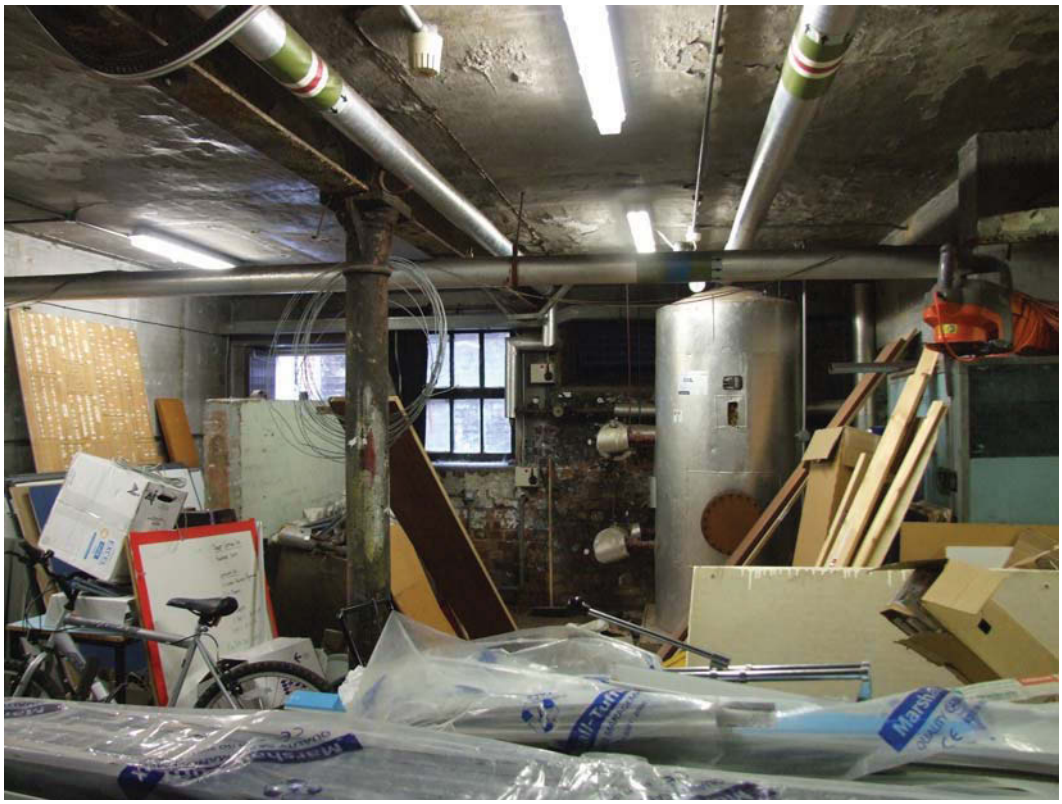


PLATE 20

The basement looking north.