

# CFA Archaeology Ltd

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**Development at Blackchapel Road, Edinburgh**

**Archaeological Evaluation**

**Report No. 3160**

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## **1. INTRODUCTION**

### **1.1 General**

This report presents the results of an archaeological evaluation undertaken by CFA Archaeology Ltd (CFA) in May 2014 prior to residential development at Blackchapel Road, Edinburgh (NGR: NT 3092 7197) (Fig. 1). The work was commissioned by Barratt East Scotland.

A Written Scheme of Investigation (WSI) dated 04 February 2014 covering this programme of works was produced by CFA and approved by City of Edinburgh Council Archaeology Service (CECAS).

### **1.2 Background**

Barratt East Scotland has been granted planning permission (Ref: 13/01378/FUL) from the City of Edinburgh Council for a development on land east of Blackchapel Road, Edinburgh. The terms of the planning consent required a programme of archaeological works including a trial trenching evaluation.

The southern half of the site was up until recently occupied by modern business premises. No evaluation was required in this area due to the significant recent disturbance. However, following the removal of the reinforced concrete slab that covers this area a monitoring visit will be paid to check for any earlier industrial remains that might be present.

The northern end of the development area contained part of the site of the former Niddrie Fireclay Works. The works were not present of the OS First Edition (1854) maps where the site is shown as open fields. The 1908 map (Fig. 16) showed several buildings contained in a rectangular enclosure to the south of a series of railway sidings (outside of the development area) at Niddrie Junction. A curving branch line from the main railway line was shown terminating at the Works on its southern side. The Buildings comprised a large rectangular building to the south, two circular structures, possibly kilns, to the north, and two smaller buildings running alongside a road marking the eastern edge of the site. The 1914 map (Fig. 17) showed the same layout as the previous map with the addition of a small building to the west of the large rectangular building and another to the east of the circular structures. By 1934 the works had been substantially enlarged (Figs. 18 & 19). A series of buildings had been built alongside and over the branch line to the factory, one of them is joined to the main factory building. The small building west of the main factory building had been extended to the west and further to the north a long narrow building had been constructed. One of the circular structures had been demolished and replaced by a rectangular building which enclosed the surviving circular structure. Further east four smaller buildings had been constructed. The fireclay works were demolished in the latter half of the 20<sup>th</sup> Century.

### **1.3 Objectives**

The project's aims and objectives were:

- To establish the presence/absence, extent, condition, character, quality and date of any archaeological features or deposits within the proposed development area through trial trenching evaluation in the northern side of the site and a call out function on the southern side of the site which is currently occupied by hardstandings.
- To establish the vulnerability of any archaeological features to the proposed development;
- To propose mitigation measures where appropriate to avoid, reduce or offset any predicted negative impacts on the archaeological resource.

## **2. WORKING METHODS**

### **2.1 General**

CFA Archaeology Ltd follows the Institute for Archaeologists' Code of Conduct, Standards and Guidance.

### **2.2 Evaluation**

Eleven trenches were excavated (Fig 1). Trenches 01-07 were located to the south of an upstanding brick built platform in the centre of the site and Trenches 08-11 to the north on the site of the demolished Niddie Fire Clay Works.

Both parts of the site had recently been cleared of woodland and spoilheaps. Concrete surfaces that formed part of the Fire Clay Works were still present at the north end of the site which meant that trenches in this area were restricted to the western and northern sides of the area.

Some upstanding elements of the Fire Clay Works survived on site and these were recorded using digital photography brief written descriptions.

Natural undisturbed subsoil deposits were revealed in all trenches. All groundbreaking work was carried out under constant archaeological supervision.

All excavation and on-site recording was carried out according to standard CFA procedures, principally by drawing, by photography and by completing standard CFA record forms.

The stratification of all excavated areas was recorded whether or not significant archaeological deposits were identified and trench positions were surveyed using industry standard surveying equipment.

### 3. ARCHAEOLOGICAL RESULTS

#### 3.1 General

Only trenches where features were identified are described below and a summary of all of the trenches excavated is contained in Appendix 3. Numbers in bold refer to contexts, a full list of which is contained in Appendix 2. Other site records are included as Appendices 1 and 4.

#### 3.2 Trial Trenches

##### *Trench 2: (Fig. 1)*

A single large pit (**0204**) filled with clay and crushed coal waste was revealed at the NE end of the trench. A machine sondage was excavated to establish the depth of this pit but this was stopped at 1.1m due to safety concerns. The pit was cut from just below the topsoil.

##### *Trench 4: (Figs. 1, 5 and 6)*

Six pits of various sizes were revealed in this trench: (**0402**), (**0404**), (**0406**), (**0408**), (**0410**) and (**0412**). All pits were cut from just below the topsoil and had varying profiles from shallow to vertical. An extension to trench 04 was made to establish the extent and depth of pit (**0402**) but the pit proved too large to be safely exposed. All pits were filled with layers of clay, crushed rock and crushed coal waste.

##### *Trench 8: (Fig. 2)*

At the S end of the trench was a concrete floor (**0802**) between 0.10m and 0.30m below the site surface. This floor rose steeply to the N where it terminated against a concrete wall (**0807**). A flat steel frame of unknown function was set into the concrete floor at its S end. N of wall (**0807**) was another concrete floor (**0803**) at a deeper level which was covered by 0.6m of demolition material. A sondage was dug through this floor which proved it to have been laid on hardcore which in turn had been laid on natural clay. The floor abutted a brick built wall (**0804**) at the N end of the trench.

##### *Trench 9: (Fig. 2)*

At the S end of the trench 0.05m-0.15m below the site surface were two parallel brick walls (**0908**) and (**0910**) with a circular brick structure in between (**0902**). This structure was filled with ash and demolition debris (**0903**) (Fig. 7). The circular brick structure appeared to represent a chimney base or opening in to a flue for exhaust gasses. Wall (**0908**) appeared to represent the S wall of a building with a concrete floor (**0904**) extending most of the way along the trench. The floor was 0.6m down from the site surface under demolition material. A sondage was dug through this floor which proved it to have been laid on hardcore which in turn had been laid on natural clay. The floor abutted a brick built wall (**0909**). Beyond this wall was another concrete floor (**0911**) which was located at a higher level which was almost level with the current site surface. A narrow but deep modern trench had been excavated across floor (**0904**) probably during demolition.

The remains in this trench represent the same building as that found in Trench 9 (0803). Walls 0804 and 0909 are the same and floor surface 0904 and 0803 are the same.

*Trench 10: (Fig. 2)*

A concrete floor surface (1002) was exposed at the eastern end of this trench 0.20m beneath recent demolition rubble. This surface butted up against a brick built wall (1003) with a pipe running along the western face of it. To the west of the wall there were no features just made up ground (1006), (1007), (1008) to a depth of 0.4m above natural clays. Beyond this was a concrete wall (1010) containing an upright steel post and a further three brick walls, (1026), (1017), (1019) also containing upright steel posts. The concrete wall is interpreted as the eastern wall of a building and the other walls internal divisions. The internal walls separated various brick and concrete floor surfaces representing internal floors (Figs. 8 and 9). The surfaces on the northern side of the trench differed from those to the S suggesting different functions. Beyond wall (1019) the ground had been disturbed by the demolition of the works. A sondage excavated into this demolition revealed a hot gas flue tunnel (1024) 0.6m down from the site surface set in a trench cut into the natural clays.

*Trench 11: (Fig. 3)*

The trench revealed a rectangular brick built structure (1110) measuring (8m x 8m) just below the site surface. The structure had been cut into natural clays and dark silty made up ground (1102) which covered the northern side of the site. In the centre of the structure was a rectangular void 4m x 4m lined with yellow fire bricks and filled with rubble from the original demolition of the factory (1115). On the N, S and W sides of the rectangular structure were brick flue tunnels (1111), (1106) and (1118) buried 0.45 below the site surface, constructed in trenches cut into natural clays (Fig. 10). The ground surrounding the flues had been heated and was red through oxidation. Flue (1118) was not fully revealed but a rectangular brick inspection hole (1114) and the oxidised ground (1113) gave away its location. Flues (1106) and (1111) were not fully bonded into brick structure (1110); instead they ended just before it leaving a brick wide gap. Well constructed arches had been built into (1110) to receive the gases from the two flues. Excavation of layer (1115) in the centre of the brick structure revealed a T-shaped wall of bricks dividing the central void into three spaces corresponding to the three flues (see fig. 11). The largest space related to flue (1116) and was coated in tar. The bricks in the other two spaces were much cleaner but showed evidence of heating especially the space relating to flue (1111).

Taken as a whole the rectangular structure appears to be the base of a large rectangular chimney where fumes from different parts of the factory were expelled. The tar-covered space relating to (1106) suggests that this flue vented from a coal burning furnace, while the heated but clean surfaces of the other two spaces suggest (1111) and (1113) may have vented hot but clean gases, probably from brick or tile kilns.

### 3.3 Upstanding Remains

The largest upstanding feature on the site was a heavily damaged rectangular raised platform (Figs. 1 & 12) which appeared to connect with an exit/entrance on the western side of the site. The structure, which stood some 1.5m above the site surface, had been cut through at its western end revealing that it was constructed of ash and coal-rich waste contained between two brick walls. The bricks forming the walls were all frogged colliery bricks. A range of makers stamps including *Bonnybridge* and *Thistle* were present. The platform was surfaced with a discontinuous mix of frogged bricks ceramic refractory tiles. Map evidence suggests that the platform served a railway siding probably used to transport goods in and out of the factory. Though there was much damage caused by demolition and vegetation, it was possible to see that the brick surface extended beyond the northern wall about half way along the platform (Figs. 1 and 15). It is very likely that this is where the platform provided access to a loading bay in the Fire Clay Works. It is possible to see an indication of this on the 1934 OS map (Figs 19 & 20) where what appears to be a roofed structure projects out to the north of the railway line.

At the eastern end of the platform was the shell of an angular brick building with two rooms next to the exit/entrance on the western side of the site (Figs. 1 and 13).

The wall along the eastern side of the site retained a few features relating to the Fire Clay Works. Here two roof lines were visible for buildings that extended in to the site (Figs. 1 and 14). Stubs of the southern and northern walls are still visible. The wall to the south still retained an upright steel girder. The wall to the north was clearly external to the buildings as it was coated in wet dash.

## 4. CONCLUSIONS

The evaluation has identified:

- Pits (Figs 5 & 6) at the southern end of the site. These are possibly associated with extraction of clay or coal and are filled with compacted clay and coal waste, however they were too deep and unstable to excavate;
- An upstanding brick built platform (Fig. 12) running east-west across the site. This appears to have carried a branch to the main railway line. This first appears on the 1908 OS map (Fig. 16). The brick work in the walls indicates a later 20<sup>th</sup> century date for their build but this could relate to later construction in this area shown on the 1934 map (Fig. 18 & 19);
- Concrete surfaces covering much of the site to the north of the platform structure. These form the surface of the current site and would have been the yard surface and floor surfaces for the Fire Clay Works;
- Upstanding wall along the eastern side of the site where the Fire Clay Works were located. This presumably formed the eastern wall of the Works complex. The remnants of roof lines of buildings (Fig 14) that once formed part of the works are preserved within this wall. They probably belong to buildings mapped along this side of the site from the 1908 map onwards (Figs. 16-19);



- Possible Chimney base, Brick built walls and concrete floor surfaces in Trenches 8 and 9 associated with the main building within the Works which was mapped on the 1908 map onwards (Figs. 16-19);
- A chimney and flue systems in Trench 11. A building is not mapped in this location until the 1934 OS map (Figs. 18 & 19). The chimney could have been located in the corner of this structure with flues feeding in from elsewhere in the Works;
- Walls and floor surfaces in Trench 10. These appear to be internal walls and surfaces. The first buildings in this area are mapped from 1914 (Fig. 17) but it seems likely that if these are internal surfaces then some must belong to buildings constructed after the 1930's as the surfaces are shown where no buildings are located on the maps of that date (Figs. 18 & 19) .

The identified remains of industrial buildings all belong to the now demolished Niddrie Fire Clay Works. All of the remains are 20<sup>th</sup> Century in date with some dating well in to the first half of the 20<sup>th</sup> Century. The works were finally demolished in the latter half of the 20<sup>th</sup> Century. These modern industrial remains are well mapped and the evaluation has proven that they have been comprehensively demolished. In most instances down on the concrete surface that would once have covered most of the Works.

Based on the results of this evaluation CFA recommend no further work in relation to the remains identified as these form part of a 20<sup>th</sup> Century industrial complex which is well mapped and survives in a fragmentary condition where further work will not significantly add to our understanding of this late industrial works.

The project archive, comprising all CFA record sheets, maps and reports, will be deposited with the National Monuments Record of Scotland (NMRS) and copies of reports will be lodged with the City of Edinburgh Council Sites and Monuments Record on completion of the project.

Following the completion of this project, a summary statement of the results of this evaluation will be submitted for publication in *Discovery and Excavation in Scotland*, and an online entry within OASIS Scotland will be submitted.

## APPENDIX 1: Photographic Register

001	Trench 01	SE
002	Trench 01	NW
003	Trench 01	NW
004	Trench 02	NE
005	Trench 02	NE
006	Trench 02	SW
007	Trench 03	NW
008	Trench 03	NW
009	Trench 03	SE
010	Trench 04	SW
011	Trench 04	NE
012	Pit [0402] (0403) Trench 04	NW
013	Pit [0404] (0405) Trench 04	SE
014	Pit [0404] (0405) Trench 04 with dump of crushed coal to the SW	SE
015	Pit [0406] (0407) Trench 04	NW
016	Pit [0408] (0409) Trench 04	SW
017	Pit [0410] (0411) Trench 04	SW
018	Pit [0410] (0411) Trench 04	SW
019	Pit [0410] (0411) Trench 04, NW facing section	N
020	Pit [0412] (0413) Trench 04	N
021	Pit [0204] showing machine sondage, Trench 02	S
022	Pit [0204] showing machine sondage, Trench 02	N
023	Trench 05	SW
024	Trench 05	NE
025	Trench 06	SW
026	Trench 06	NE
027	Trench 07	SW
028	Trench 07	NE
029	Pit [0402] in plan after trench extension, Trench 4	N
030	Pit [0402] in plan after trench extension, Trench 4	N
031	Pit [0402] in section, machine sondage, Trench 4	SW
032	Pit [0402] in section, machine sondage, Trench 4	SW
033	NW end of platform where it has been cut by modern disturbance	W
034	NW end of platform where it has been cut by modern disturbance	W
035	NW end of platform where it has been cut by modern disturbance	W
036	NE wall of platform, NW end	NE
037	NE wall of platform, NW end	NE
038	Close up of brickwork, NE wall of platform, NW end	N
039	General shot of NE wall of platform showing disturbance	N
040	Close up of brickwork, NE wall of platform, SE end	NE
041	Close up of brickwork, NE wall of platform, SE end	NE
042	General shots of NW edge of platform	NE
043	General shots of NW edge of platform showing disturbance	N
044	General shots of NW edge of platform showing disturbance	N
045	Exposing flue (1106)	SE
046	Trench 09	SW
047	Chimney (0909), Trench 09	SW
048	Trench 09	NE
049	Trench 08	SW
050	Trench 08	NE
051	Steel frame within concrete surface (0802), Trench 08	SW
052	Square feature for pillar within floor (0803), Trench 08	SW
053	Rectangular concrete block (0805) below floor (0803), Trench 08	NW
054	Rectangular concrete block (0805) below floor (0803), Trench 08	NW

055	Trench 10	SE
056	Trench 10	NW
057	Sondage in Trench 10 showing made ground (1006), (1007), (1008) above natural clay	NE
058	Brick surfaces (1009) and (1012) separated by sandy layer (1011), Trench 10	NW
059	Walls (1025) and (1017) and surfaces (1015) and (1016) in between, Trench 10	NE
060	Disturbed surface (1018), surfaces (1015), (1016) and wall (1019), Trench 10	NE
061	Flue (1024) below layers of demolition, Trench 10	NE
062	Flue (1111) entering brick structure (1110), Trench 11	NE
063	Flue (1111) entering brick structure (1110), Trench 11	NE
064	Close up of flue (1111), Trench 11	SW
065	Close up of arch where flue (1111) joins brick structure (1110)	NE
066	Close up of arch where flue (1111) joins brick structure (1110)	NE
067	Close up of arch where flue (1111) joins brick structure (1110)	NE
068	General shot of brick structure (1110), Trench 11	NE
069	General shot of brick structure (1110), Trench 11	SE
070	Shot showing flue (1106), Trench 11	SW
071	Shot showing flue (1106), Trench 11	SW
072	Brick inspection hole / vent (1114), Trench 11	SW
073	Brick inspection hole / vent (1114), Trench 11	SE
074	Shot of SW wall of platform	SW
075	Close up of SW wall of platform, NW end	SW
076	Close up of SW wall of platform, middle	SW
077	Close up of SW wall of platform, SE end	SW
078	General shot of SW wall of platform	S
079	General shot of SW wall of platform	W
080	Shot of top surface of platform, NW end	NW
081	Shot of top surface of platform, middle	NW
082	Close up of tiled surface on platform	SE
083	Shot of kerbing of SW wall of platform, shot also shows tiled surface	NE
084	Shot of kerbing of SW wall of platform, shot also shows tiled surface	E
085	Shot of brick surface on top of platform	SW
086	Close up of brick surface on top of platform	SW
087	Brick stamped 'Thistle', SW wall of platform	SE
088	Brick stamped 'Bonnybridge', SW wall of platform	SE
089	General shot of brick surface on top of platform	SE
090	'Niddy' bricks fallen off the angular building to the SE of platform	N
091	Concrete structure in front of angular building to the SE of platform	NW
092	Concrete structure in front of angular building to the SE of platform	NW
093	General shot of the angular building SE of platform	N
094	Close ups of angular building SE of platform	N
095	Close ups of angular building SE of platform	N
096	Close ups of angular building SE of platform	N
097	Close ups of angular building SE of platform	SW
098	Shot looking along platform from angular building	NW
099	N wall of angular building	N
100	Curved wall aligned with platform	SW
101	Curved wall aligned with platform	W
102	Wall on SE side of site showing roof lines	NW
103	Wall on SE side of site showing roof lines	NW
104	SW wall stub of building at SE side of site	NE
105	Wall on SE side of site showing roof lines	NW
106	Wall on SE side of site showing roof lines	NW
107	Wall on SE side of site showing roof lines	NW
108	Wall on SE side of site showing dashed face	NW

109	General shots of wall on SE side of site showing roof lines	W
110	General shots of wall on SE side of site showing roof lines	W
111	General shots of wall on SE side of site showing roof lines	W
112	Shot showing brick surface on top of platform extending beyond the NE wall	NW
113	Structure (1110) showing brick divisions, Trench 11	NE
114	Structure (1110) showing brick divisions, Trench 11	NW
115	Structure (1110) showing brick divisions and slot leading down to flue (1106), Trench 11	SW
116	Tar lining the surface of the S compartment of structure (1110)	NW
117	Tar lining the surface of the S compartment of structure (1110)	S
118	Heated surface of bricks lining the NW compartment of structure (1110)	W
119	Heated surface of bricks lining the NE compartment of structure (1110)	NE
120	Heated surface of bricks lining the NE compartment of structure (1110)	SW

## APPENDIX 2: Context Register

Context No.	Trench	Description
0100	01	Natural, Trench 01. Mottled grey, yellow and orange clays with occ large to small angular sandstone frags, occ coal fragments. Disturbed by vegetation and roots.
0101	01	Topsoil, Trench 01. Mid brown loam.
0102	01	Subsoil, Trench 01. Light grey brown reddish silt
0200	02	Natural, Trench 02. Yellow-beige clays and silty clays
0201	02	Topsoil, Trench 02. Mid brown loam
0202	02	Subsoil, Trench 01. Light grey brown reddish silt
0203	02	Made ground, base of spoil heap not removed. Mid brown reddish sandy silt with frequent stones and plastic rubbish
0204	02	Cut of large pit containing clay (0205) and crushed coal (0206). Measures 2.5m across at top. More than 1.1m deep. Near vertical sides. Represents mining pit. Cut from surface.
0205	02	Upper fill of pit [0204]. Greyish-brown clay with frequent small to med stones. 50cm thick
0206	02	Main fill of pit [0204]. Black deposit of crushed coal. More than 70cm thick
0300	03	Natural, Trench 03. Beige clayey silts and clays, frequent sub-angular rocks 2-10cm dia
0301	03	Topsoil, Trench 03. Mid brown loam.
0302	03	Subsoil, Trench 03. Light grey brown reddish silt
0400	04	Natural, Trench 04. Mixed yellow and grey clays with frequent angular rocks 1-10cm dia and frequent patches of black silty from rooting
0401	04	Topsoil, Trench 04. Mid brown loam
0402	04	Cut of large pit containing clay (0403) and crushed coal (0414). More than 4.5m wide and more than 1.1m deep. Sides roughly 45 degrees. Represents mining pit. Cut from surface
0403	04	Upper fill of pit [0402]. Brown clay with angular rock and lumps of coal. Thicker than 1m
0404	04	Cut of small pit containing crushed mudstone (0405). Vertical sides, 80cm wide, greater than 32cm deep.
0405	04	Fill of [0404], crushed mudstone
0406	04	Cut of large pit containing clay (0407). Measures 3m wide at top, sides 45 degrees, pit not bottomed, greater than 1m deep. Represents mining pit. Cut from surface
0407	04	Fill of [0406]. Brown clay, compact with large angular blocks of stone.
0408	04	Cut of large pit containing clay and crushed coal (0409). More than 2m in width and 70cm in depth, not bottomed. Represents mining

		pit. Cut from surface
0409	04	Fill of [0408]. Deposit containing black crushed coal, fragments of red sandstone and grey clay.
0410	04	Cut of large pit containing grey-brown clay and crushed coal (0411). Measures 3.5m wide at the top, sides very shallow. More than 0.8m deep, not bottomed. Represents mining pit. Cut from surface
0411	04	Fill of pit [0410]. Deposit containing grey-brown clay, angular rock and crushed coal
0412	04	Cut for small pit containing clay and crushed coal (0413). Measures 1.5m wide, sides relatively shallow, not bottomed. Represents mining pit. Cut from surface
0413	04	Fill of (0412), deposit of grey-brown clay and crushed coal
0414	04	Lower fill of pit [0402]. Black crushed coal
0500	05	Natural, Trench 04. Compact grey clays and angular rock
0501	05	Topsoil, Trench 05. Mid brown loam.
0600	06	Natural, Trench 06. Yellow-grey clays with sandstone fragments and light beige clayey sands
0601	06	Topsoil, Trench 06. Mid brown loam,
0700	07	Natural, Trench 07. Mixed yellow clays with fragments of red sandstone and beige clayey silts
0701	07	Topsoil, Trench 07. Mid brown loam, heavily compressed by machines
0800	08	Natural, Trench 08. Yellow clays with occ small stones
0801	08	Demolition layer, upper deposit of Trench 08. General demolition / disturbance by machines clearing the site of vegetation and concrete. Dark layer containing bricks, concrete, mortar and clayey sand
0802	08	Concrete surface below (0801), rises up to the NE. Steel frame embedded into the concrete
0803	08	Concrete surface for building 0.6m below (0801). Ends at wall brick wall (0804) to the NE. Set onto (0806) hardcore / type 1
0804	08	Brick wall at NE end of trench, double skinned.
0805	08	Rectangular block below (0803) / (0806) placed / set on natural.
0806	08	Grey crushed angular rock, type 1 / hardcore below concrete floor (0803)
0807	08	Concrete wall dividing concrete surfaces (0803) and (0802)
0900	09	Natural, Trench 09. Yellow clays with occ small stones
0901	09	Demolition layer, upper deposit of Trench 09. General demolition / disturbance by machines clearing the site of vegetation and concrete. Dark layer containing bricks, concrete, mortar and clayey sand
0902	09	Circular brick structure built in between walls (0908) and (0910) filled with black ashy layer (0903). Possibly chimney / flue.
0903	09	Fill of circular brick feature (0902). Black-grey ashy silt with occasional brick fragments. Fill of flue from initial demolition of building
0904	09	Concrete surface for building 0.6m below (0901). Ends at brick wall (0909) to the NE
0905	09	Grey crushed angular rock, type 1 / hardcore below concrete floor (0904)
0906	09	Deep modern linear cut across building (0904), not bottomed, more than 1.3m deep. Filled with demolition debris (0907).
0907	09	Layer similar to (0901), contains demolition debris and plastic.
0908	09	Brick wall, double thickness on NE side of (0902)
0909	09	Brick wall at NE end of trench, double skinned. Divides concrete floor (0908) and (0904)
0910	09	Double skinned brick wall, SW side of (0902)
0911	09	Concrete floor for building N of wall (0909)

1000	10	Natural, Trench 10. Mid brown clays
1001	10	Demolition layer, upper deposit of Trench 10. General demolition / disturbance by machines clearing the site of vegetation and concrete. Dark layer containing bricks, concrete, mortar and clayey sand
1002	10	Concrete surface at SE end of trench, ends in brick wall (1003)
1003	10	Double skinned brick wall just under demolition layer (1001)
1004	10	Iron pipe running parallel to wall (1003), 9cm wide, fill of pipe cut, grey loamy silt
1005	10	Cut for pipe trench (1004), cut into (1006) and (1007)
1006	10	A layer of grey ash below (1001), 7cm thick. Made up ground
1007	10	A light beige clay with occ stones and crushed brick below (1006), 10cm thick. Made up ground
1008	10	A dark grey silt with occ small stones and coal fragments below (1007), 21cm thick. Made up ground
1009	10	A brick surface 12cm below surface, cream and red bricks
1010	10	Concrete wall with steel post SE of surfaces (1009) and (1012)
1011	10	Reddish-beige sand and rubble between brick surfaces (1009) and (1012), site of wall or division?
1012	10	A very loose brick surface NE of (1011), probably an external floor surface.
1013	10	Concrete surface SE of wall (1025)
1014	10	Brick surface SE of wall (1025)
1015	10	Brick surfaces on either side of surface (1019), extend half way across trench, highly fired cream bricks marked 'Doune'
1016	10	Concrete surface NE of brick surface (1015)
1017	10	Double skinned brick wall with steel post, bricks marked 'Bonnybridge'
1018	10	Disturbed brick surface, uneven
1019	10	Single skinned brick wall to the NW of surfaces (1015) and (1016), contains steel post
1020	10	Brick surface to NW of wall (1019)
1021	10	Concrete surface NW of wall (1019)
1022	10	Fill of trench [1021] containing flue (1024), red sand and grit
1023	10	Rectangular brick surface / structure connected to flue (1024)
1024	10	Red brick flue tunnel orientated N-S 0.6m below surface
1025	10	Brick surface 0.28m below surface at NW end of trench
1026	10	Double skinned brick wall containing steel post SE of surfaces (1015) and (1016)
1100	11	Natural, Trench 11. Mid brown clays
1101	11	Demolition layer, upper deposit of Trench 11. General demolition / disturbance by machines clearing the site of vegetation and concrete. Dark layer containing bricks, concrete, mortar and clayey sand
1102	11	A dark grey silt with occ small stones and coal fragments below (1101), up to 45cm thick. Made up ground
1103	11	Double skinned wall for building to the S of concrete structure (1110)
1104	11	Cut for flue trench (1106)
1105	11	Fill of flue trench (1106), red sands and grits
1106	11	Brick flue tunnel to the SW of brick structure (1010)
1107	11	Cut for flue trench (1111)
1108	11	Fill of flue trench (1108), red sands and grits
1109	11	Cut for rectangular brick structure (1110)
1110	11	Large rectangular brick structure with large central square hole - chimney base. Inner hole lined with yellow bricks. Hole contains wall dividing the chimney into 3 parts corresponding to flues (1106), (1118) and (1111).

1111	11	Brick flue tunnel to the NE of brick structure (1010)
1112	11	Packing fill between cut [1109] and brick structure (1010), a grey-brown clay with occ coal frags.
1113	11	Fill of trench [1117] containing flue tunnel (1118), red sands and grits
1114	11	Rectangular brick structure with hole into flue (1118)
1115	11	Fill of rectangular hole in the middle of brick structure (1010); fill from original demolition of factory. A black-brown deposit containing 70% bricks, crushed coal and ash.
1116	11	Divisions within the central hole of brick structure (1010). A single skin of bricks running E-W and N and S. The space created to the S corresponding to flue (1106) has been coated in a layer of tar. The space to the N corresponding to flue (1111) shows has a vitrified red layer on the surface of the bricks. The space to the E corresponding to flue (1118) shows evidence of heating but bricks are largely clean.

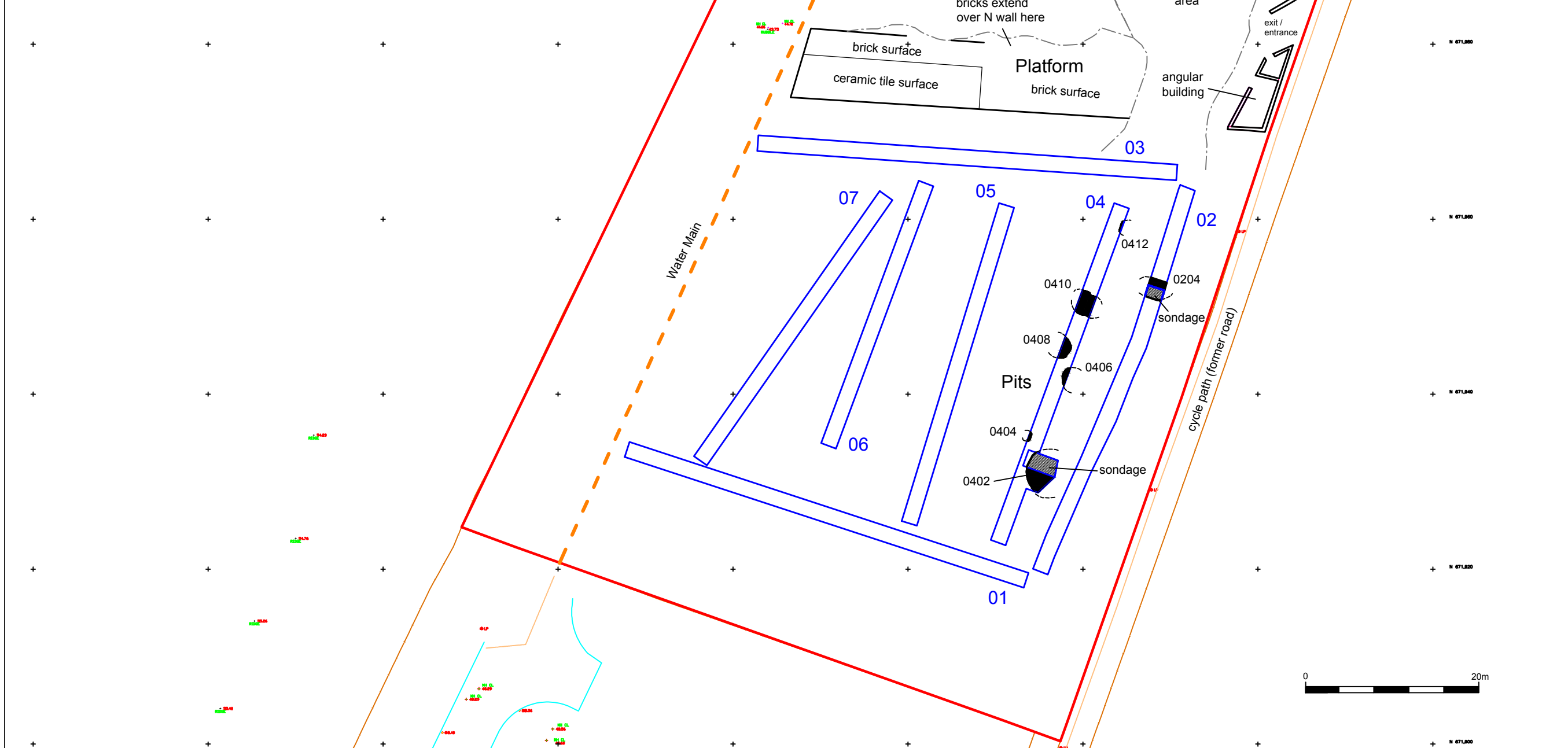
### APPENDIX 3: Trench Summary

Trench No.	Size (m)	Topsoil Depth (m)	Demolition Layer Depth (m)	Trench Depth (m)	Features
01	48 x 1.8	0.08-0.15	-	0.6-1.2	None
02	47 x 1.8	0.05-0.4	-	0.24-1.1	Pit [0204]
03	48 x 1.8	0.07-0.27	-	0.18-0.5	None
04	41 x 1.8	0.15-0.8	-	0.38-1.1	Pits [0402], [0404], [0406], [0408], [0410] and [0412]
05	35 x 1.8	0.01-0.2	-	0.13-0.46	None
06	32 x 1.8	0.1-0.3	-	0.28-0.32	None
07	37 x 1.8	0.08-0.28	-	0.26-0.35	None
08	23 x 1.8	-	0.1-0.6	0.22-0.75	Concrete floors (0802), (0803), block (0805) and wall (0804)
09	25 x 1.8	-	0.05-0.5	0.05-1.3	Walls (0908), (0909) and (0911), chimney (0903) / 0909), concrete floors (0904) and (0912)
10	28.5 x 1.8	-	0.24-0.6	1.2	Floors (1002), (1009), (1012), (1013), (1014), (1015), (1016), (1018), (1021), (1025), walls (1003), (1010), (1026), (1017), (1019), flue (2024)
11	23 x 20	-	0.12-0.15	0.17-0.73	Brick structure (1110) and (1114), flues (1114), (1106), (1111).

#### APPENDIX 4: Field Drawings Register

Sheet No	Drawing No	Scale	Section/Plan	Description
1	1	1:40	Plan of [0204]	Trench 2
1	2	1:20	NW facing Section of [0204]	Trench 2
1	3	1:100	Plan of pits in trench 04	Trench 4
1	4	1:20	Plan of pit [0402]	Trench 4
1	5	1:20	Section of [0402]	Trench 4
2	6	1:100	Plan of pit [0402] - sondage	Trench 4
2	7	1:100	Plan of Trench 08	Trench 8
2	8	1:100	Plan of Trench 09	Trench 09
2	9	1:100	Plan of Trench 10	Trench 10
3	10	1:25	Plan of Trench 11	Trench 11
4	11	-	Sketch plan of upstanding features	-





- Key:
- Evaluation Area
  - Trenches
  - Concrete

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Fig. No: 1	Revision: A
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Title:  
**Location of trenches and  
 upstanding features**

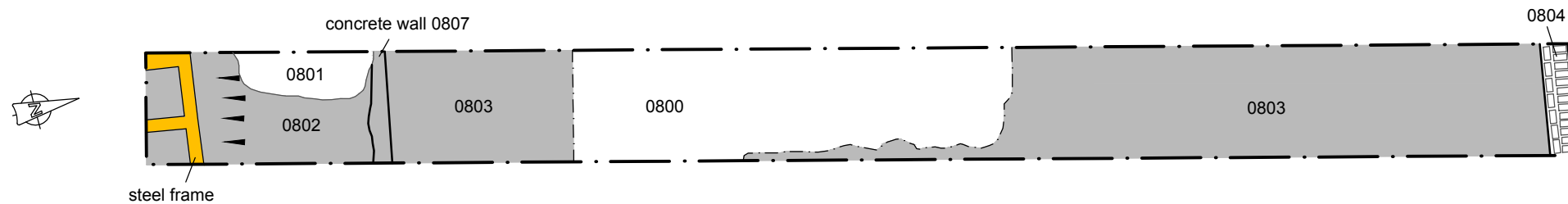
Project:  
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Client:  
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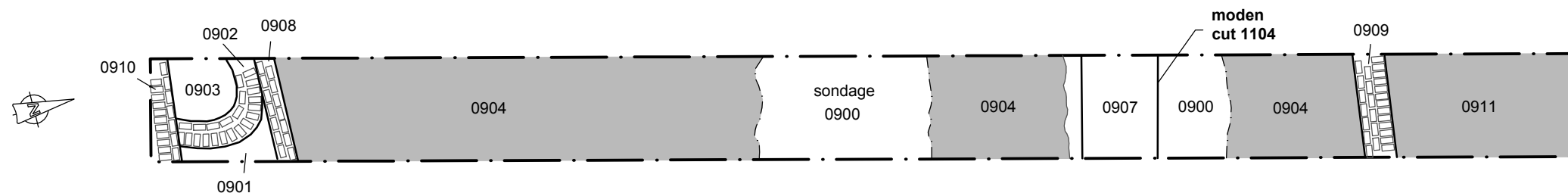
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Drawn by: TB	Checked by: BG	Report No: 3160
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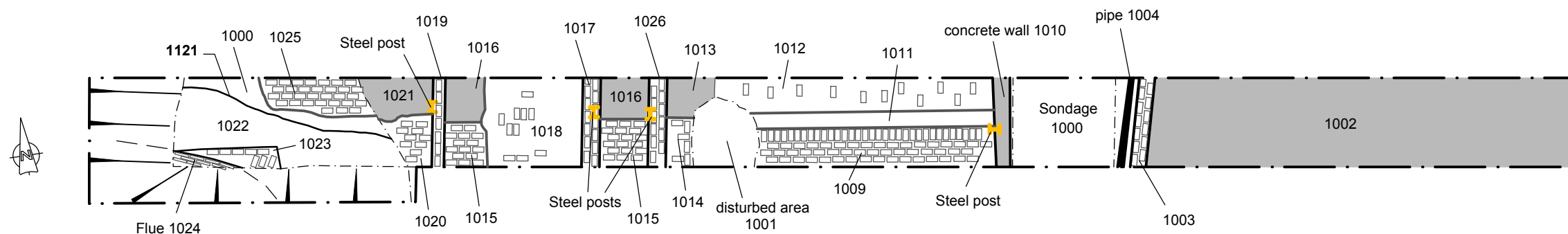
### Trench 08



### Trench 09



### Trench 10



Key:





Key:

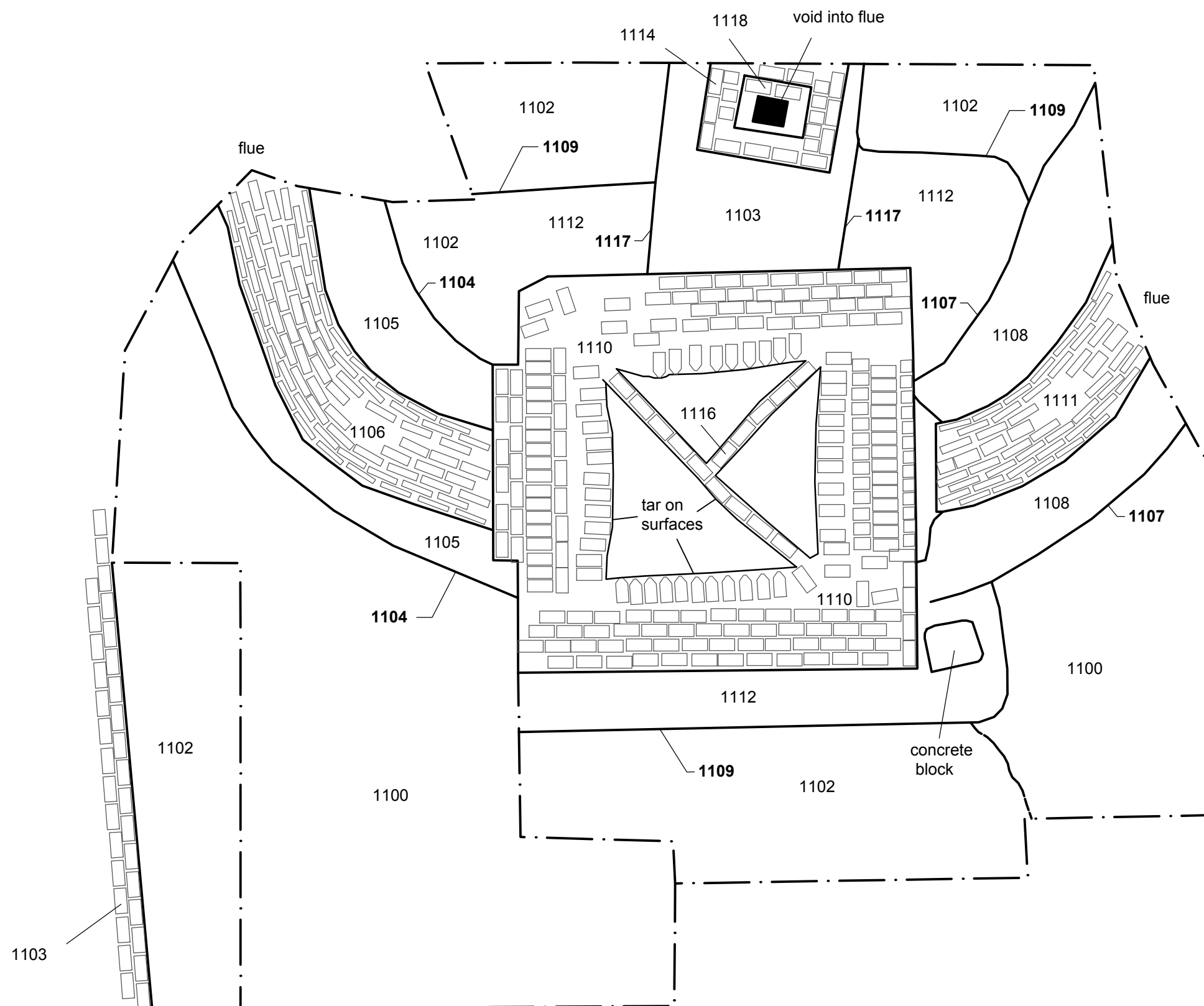




Fig. 4 - Trench 03, from the W



Fig. 5 - Pit (0410). Trench 04, from the N



Fig. 6 - SW facing section through pit (0402).  
Trench 04, from the S





Fig. 7 - Trench 09, from the S



Fig. 8 - Brick surfaces (1009) and (1010).  
Trench 10, from the W



Fig. 9 - Brick walls (1026) and (1017).  
Trench 10, from the N

Fig. No: <b>4-9</b>		Revision: <b>A</b>	Project: <b>Development at Blackchapel Road, Edinburgh Archaeological Evaluation</b>		
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Fig. 10 - Shot of brick structure (1110) and flues. Trench 11, from the S



Fig. 11 - Shot showing brick division (1116) in structure (1110). Trench 11, from the N

Fig. No: <b>10-11</b>		Revision: <b>A</b>	Project: <b>Development at Blackchapel Road, Edinburgh Archaeological Evaluation</b>			<b>CFA ARCHAEOLOGY LTD</b> The Old Engine House Eskmills Park, Musselburgh East Lothian, Eh21 7PQ
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Fig. 12 - General shot of the platform, from the E



Fig. 13 - The angular building, from the N

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Fig. 14 - Shot of gable wall of double-roofed warehouse, from the SW



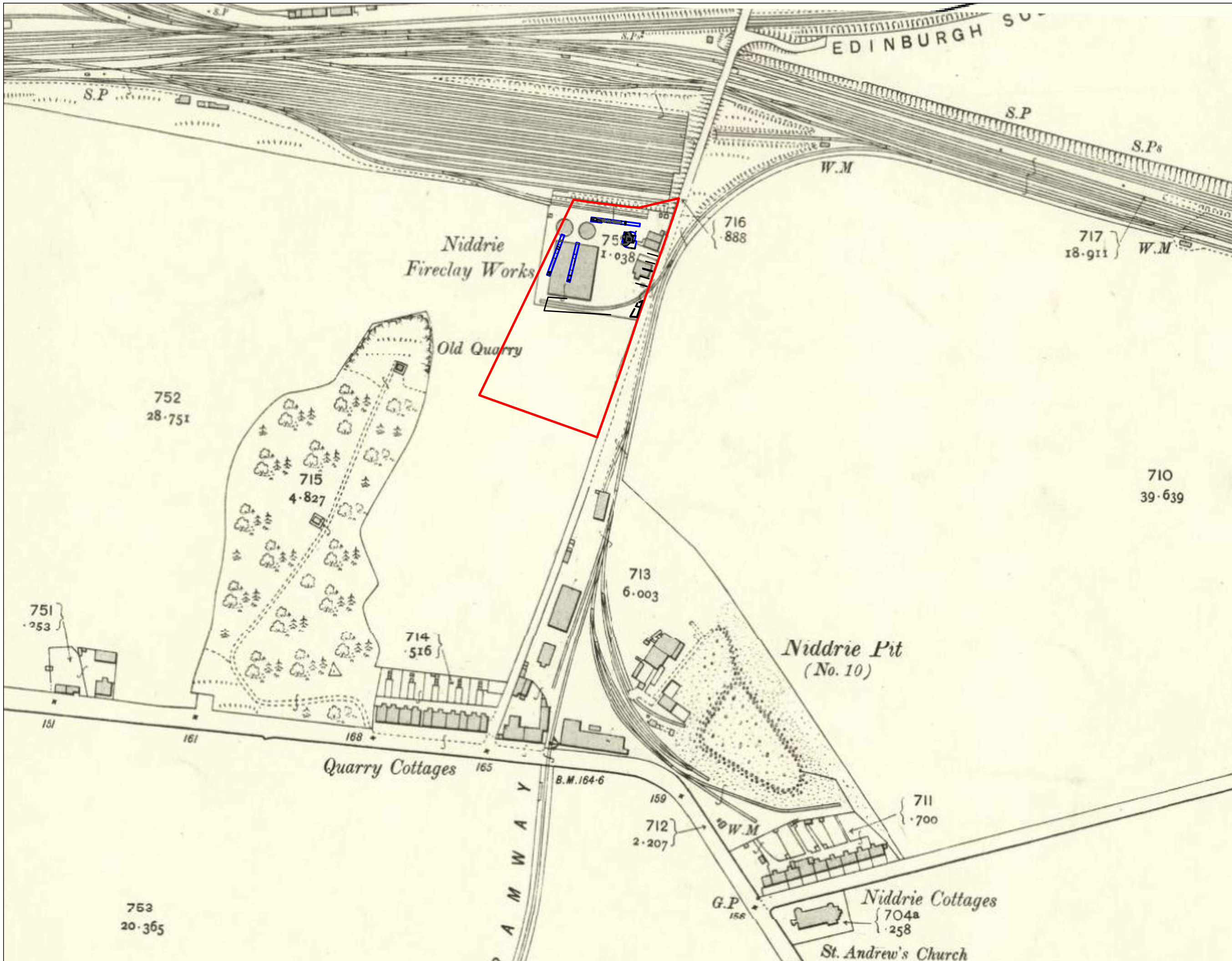
Fig. 15 - Shot showing where brick surface of platform extends out past the NE wall - possible 1st floor entrance to the factory, from the W

Fig. No: <b>14-15</b>		Revision: <b>A</b>	Project: <b>Development at Blackchapel Road, Edinburgh Archaeological Evaluation</b>		
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Fig. No:	16	Revision:	A
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Title:  
The 1908 OS map

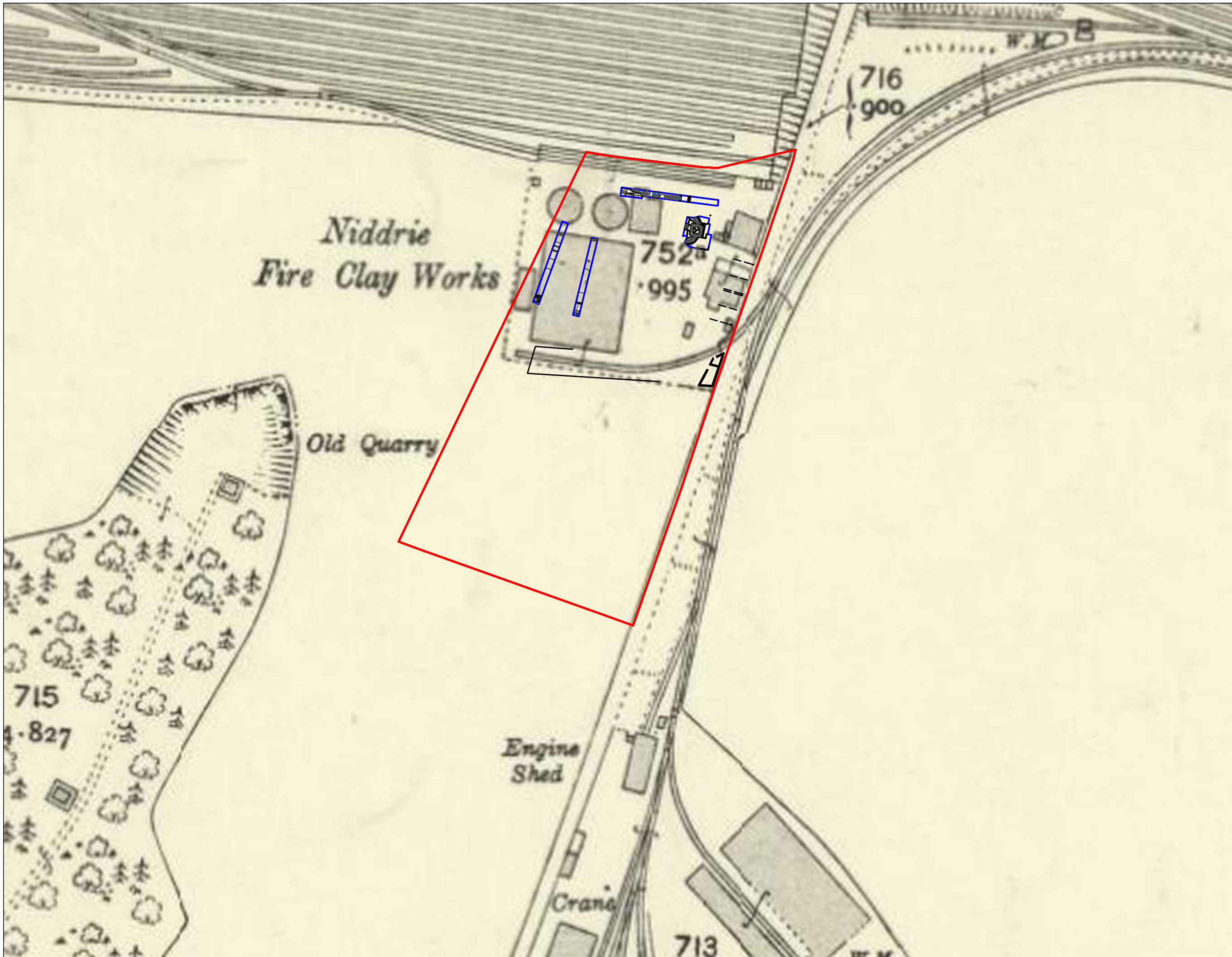
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1:2000

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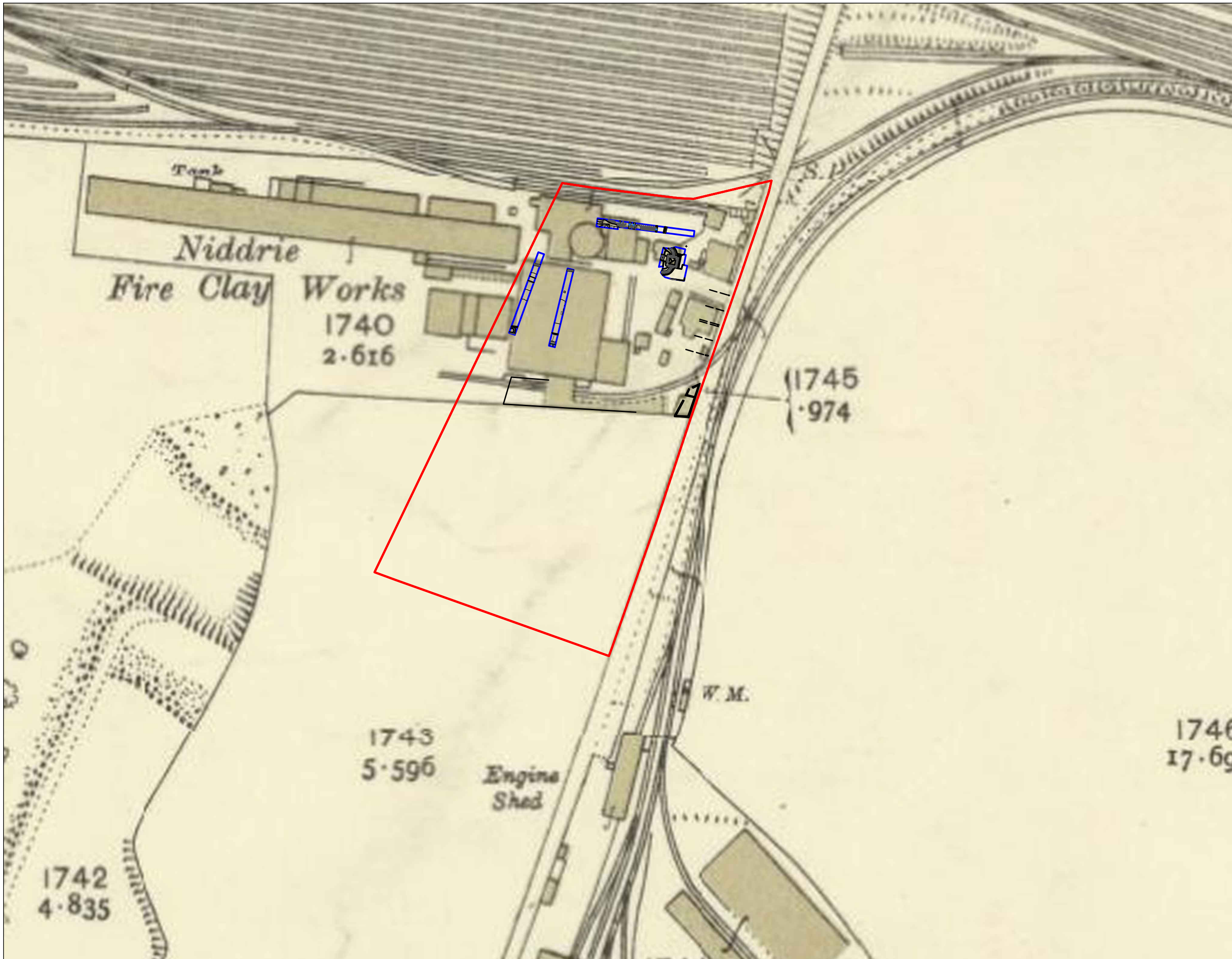
Fig. No:	17	Revision:	A
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Title:  
The 1914 OS map

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Scale at A3:  
1:1000



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Fig. No: 18 Revision: A

Title:  
The 1934 OS map

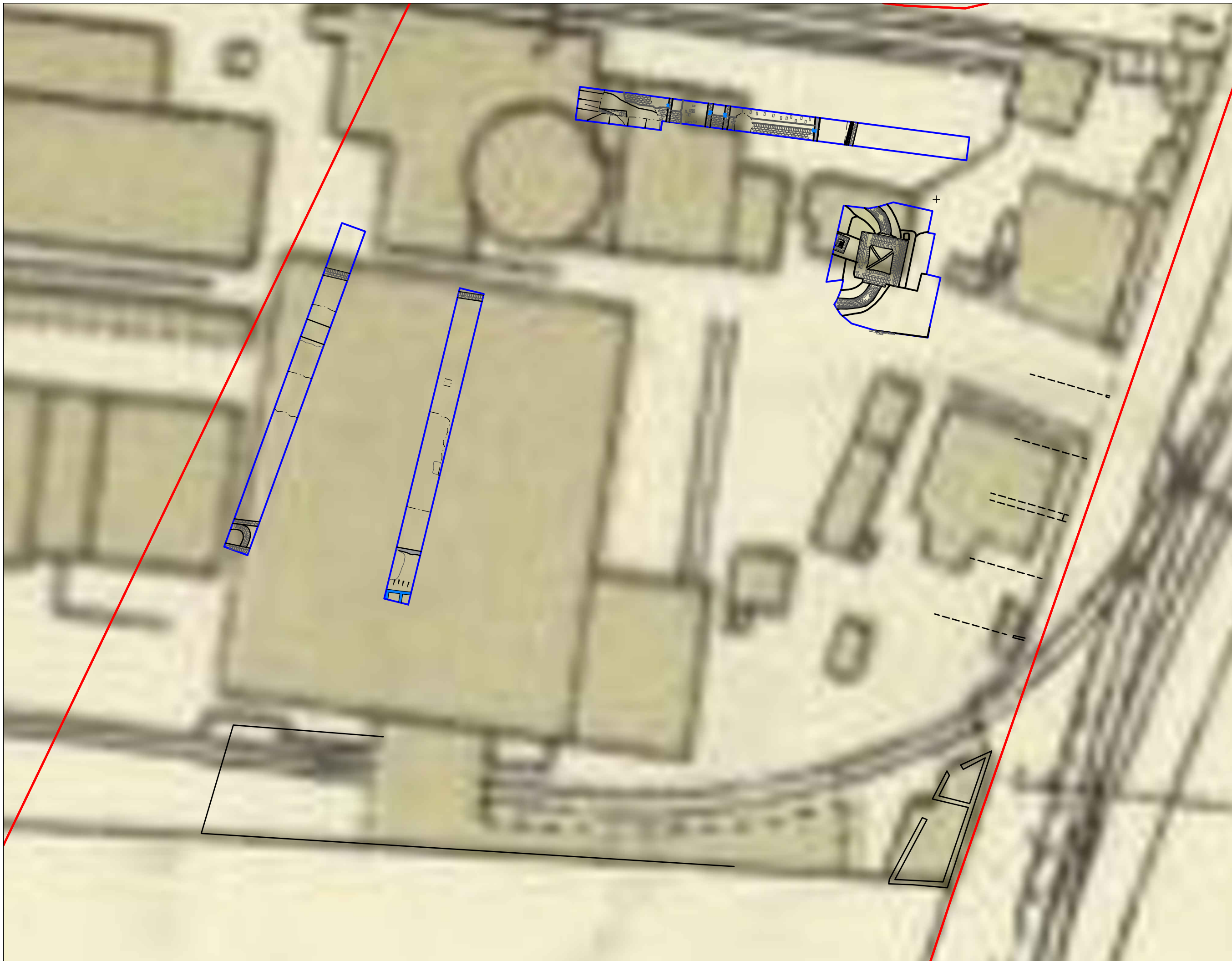
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Scale at A3:  
1:1000



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Fig. No:	19	Revision:	A
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Title:  
The 1934 OS map (zoomed)

Project:  
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Archaeological Evaluation

Client:  
Barratt East Scotland

Scale at A3:  
1:250