



**South Crofty Mine
Pool, Redruth
Cornwall**

(NGR SW 6645 4095)

Written Scheme of Investigation for an Archaeological
Watching Brief

ISCA Project: P02-00001

Site code: **XXXX**

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SUMMARY

This Written Scheme of Investigation has been prepared by ISCA Archaeology Limited, on behalf of Henry Boot Developments Limited, for archaeological works to be undertaken ahead of the proposed works at South Crofty Mine, Pool, Redruth, Cornwall, for the development of land for a builder's merchants, including storage, distribution, trade counter, offices and ancillary retail sales. The proposed application site is located within the boundaries of the former South Crofty Mine, in an area totalling approximately 1.2 hectares, which is open, partially scrubby ground. The application area does not contain any upstanding remains; buildings and other structures associated with the mine lie to the east and south. Parts of the Cornwall and West Devon Mining Landscape World Heritage Site lie to the north and south, as do several listed buildings and Tuckingmill Conservation Area, to the north.

A Heritage Desk Based Assessment for the site was carried out by BSA Heritage Limited 2020 and concluded that, although there are scattered prehistoric and Romano-British remains within the vicinity, these are likely to have been harmed by more recent mining related development across the area. A geotechnical investigation has highlighted the presence of three known shafts and four suspected shafts. Any archaeological impacts on the site are likely to be minor, but will require a watching brief to assess and record the below ground works and any un-recorded structural remains associated with earlier mining activity, especially in the areas around these mine shafts.

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1. INTRODUCTION

1.1 This document sets out details of a *Written Scheme of Investigation* (WSI) by ISCA Archaeology (ISCA) for an archaeological watching brief at South Crofty Mine, Pool, Redruth, Cornwall, centred at NGR SW 6645 4095. The watching brief has been commissioned by Henry Boot Developments Limited. The WSI sets out the methodology for the archaeological works to be undertaken ahead of the proposed works, and for related off-site analyses and reporting. The WSI and the schedule of work it proposes were drawn up in consultation with Historic Environment Planning - Archaeology (HEP (Arch)).

1.2 Works on this site are being undertaken as part of planning application PA20/01939 for the development of land for a builder's merchants, including storage, distribution, trade counter, offices and ancillary retail sales.

1.3 Condition 8 of the Conditional Planning Permission states that:

A) No development shall take place until a programme of archaeological recording work including a Written Scheme of Investigation has been submitted to and approved by the local planning authority in writing. The scheme shall include an assessment of significance and research questions, and:

1. The programme and methodology of site investigation and recording
2. The programme for post investigation assessment
3. Provision to be made for analysis of the site investigation and recording
4. Provision to be made for publication and dissemination of the analysis and records of the site investigation
5. Provision to be made for archive deposition of the analysis and records of the site investigation
6. Nomination of a competent person or persons/organisation to undertake the works set out within the Written Scheme of Investigation

B) No development shall take place other than in accordance with the Written Scheme of Investigation approved under condition (A).

C) The development shall not be occupied until the site investigation and post investigation assessment has been completed in accordance with the programme set out in the Written Scheme of Investigation approved under condition (A) and the provision made for analysis, publication and dissemination of results and archive deposition has been secured.

D) The archaeological recording condition will normally only be discharged when all elements of the WSI including on site works, analysis, report, publication (where applicable) and archive work has been completed.

1.4 In addition to the above, HEP (Arch) has also provided information to guide and target the watching brief (dated 3rd November 2020) which focuses on mine shafts and the potential for early workings to be revealed by ground disturbance and by further mining survey, as indicated by a geotechnical investigation report conducted by Terrafirma in 2019 (see 2.10 and 4.10 below).

1.5 The HEP (Arch) consider it prudent that an archaeological watching brief should be carried out during the early stages of groundworks (including the further investigations of the mine shafts and shallow workings), undertaken by a suitably qualified organisation or individual. HEP (Arch) advised, for the above reasons, that any consent issued should carry the condition, as worded above, of sections A-D inclusive, as well as section D1 below, as recommended by the Association of Local Government Archaeological Officers (ALGAO), as follows:

D1) The archaeological recording condition will normally only be discharged when all elements of the WSI, including on site works, analysis, report, publication (where applicable) and archive work has been completed.

1.6 A pre-commencement condition is necessary in this instance due to the need to ensure that a programme and methodology of site investigation and recording of archaeological features is undertaken before physical works commence on site. This is in accordance with the provisions of NPPF (2019) Chapter 16, paragraph 199 and Cornwall Local Plan policy 24.

- 1.7 This WSI has been guided in its composition by *Standard and Guidance for Archaeological Watching Briefs* (ClfA 2020), *Management of Research Projects in the Historic Environment PPN 3: Archaeological Excavation* (Historic England 2015) and *Management of Research Projects in the Historic Environment: Project Manager's Guide* (Historic England 2015) and in accordance with paragraph 199 of the *National Planning Policy Framework* (2019), and the *Cornwall Local Plan Policy 24*, which states:

'Development proposals will be permitted where they would sustain the cultural distinctiveness and significance of Cornwall's historic...environment by protecting, conserving and where appropriate enhancing the significance of designated and non-designated assets and their settings.' (Cornwall Council 2016).

The site

- 1.8 The proposed application site (henceforth referred to as 'the Site') is located within the boundaries of the former South Crofty Mine, in an area totalling approximately 1.2 hectares, which is open, partially scrubby ground (Fig 1). Although the application area does not contain any upstanding remains, buildings and other structures associated with the mine lie to the east and south. The Site is bounded by Kerrier Way (A3047) to the north, open ground sloping downwards towards the Red River to the west, buildings of South Crofty Mine to the east, including the late 20th century headframe, and open, higher ground to the south. Parts of the Cornwall and West Devon Mining Landscape World Heritage Site (WHS) lie to the north and south, as do several listed buildings and Tuckingmill Conservation Area, to the north.
- 1.9 The bedrock geology of the Site is mapped as Mylor Slate Formation - Hornfelsesed Slate and Hornfelsesed Siltstone, which formed approximately 359 to 383 million years ago in the Devonian Period, with no overlying superficial deposits. (BGS 2021).

2. ARCHAEOLOGICAL BACKGROUND

- 2.1 The Site has been the subject of a Heritage Desk Based Assessment (BSA Heritage Limited 2020) and the following section utilises information contained in that document.

- 2.2. Only a small number of Historic Environment Records (HER) in the locality of the site are of pre-medieval date. Those closest to the site, chance finds of early material and suggested sites given place-name evidence, are typical of most of these early records more widely. Approximately 300 metres north-west of the site, HER 1794 records the findspot of a Neolithic stone adze, indicating activity in the area from this period.
- 2.3 Such early remains are likely to have been harmed by more recent mining-related development across the area. This is likely to have also had an adverse effect on Iron Age or Romano-British rounds or enclosed settlement sites that lie under 100 meters and under 200 metres south and east of the site, respectively. Other rounds have been postulated more widely and a Bronze Age round barrow is thought to have lain to the north east.
- 2.4 Although more widely the HER records several settlements of medieval or earlier origins, none lie close to the site. Other records are all post-medieval and often of 19th century date and most are related to the mining industry. Within the Site itself, a tramway would have crossed through and is noted to have dated from at least the 1830s and run until after the Second World War. The HER entry notes that the route can still be picked up as trackway in places.
- 2.5 A further tramway is located to the north-east of the site, and to the north of the site was a 19th century engine house marked on historic maps, which powered the tramway.
- 2.6 To the north of, and just within the Site, 20th century structures are noted on post-war aerial photographs. These were part of 'South Crofty Mine' and are noted to have been built after the early 20th century OS Map and to have since been demolished. These buildings were recorded ahead of demolition (Thomas et al 2015) and are detailed in the DBA. No major buildings relating to the mine appear in any of the earlier maps (see 3.8 and 3.9 below), though there may be some unrecorded building remains present below ground.
- 2.7. Other potential heritage constraints to development include the Cornwall and West Devon Mining Landscape World Heritage Site (WHS): Camborne and Redruth District (Fig 1). Parts of this extensive area lie approximately 100 metres north of the Site and 150 metres to the south. The latest management plan for the WHS identifies the Grade II* listed mining buildings retained within the Heartlands redevelopment, circa

400 metres east of the Site, as a key element of this part of the WHS, but nothing closer to the Site (Dancer & Cocks 2017).

- 2.8 A search of the Historic England Archive for aerial photographs it holds of the Site and its environs produced many oblique and vertical images. These images confirmed that, in the immediate post-World War II period, the Site remained as shown on Ordnance Survey maps, with a mainly open aspect and the route of the tramway still evident running across the Site. The chimney also appears to have survived in the north-east of the Site. Oblique images suggest the site area had been levelled by this time, with the higher ground to the south evident.
- 2.9 By the 1960s, land to the north of the Site is covered by several structures, which seem to be large metal panel buildings in the main. A conveyor appears to run east of these and partly within the Site on a similar alignment as the tramway had. Many oblique images dating to the 1980s and 1990s confirm that the Site by then held a three-silo feature, likely the primary ore bins, which had a covered, elevated conveyor running eastwards to it from the South Crofty headframe. This latter is not definitely in place before the 1980s. Other structures all lay north of this and were all contiguous, with parts of the southernmost likely to have lain within the Site itself. By the 1990s, the structures appear to be derelict with holes in roof panels and walls apparent.
- 2.10 A geotechnical survey (TerraFirma 2019) has noted the presence of three shafts and four further potential shafts (Fig 8). Due to the longevity of mining activity on the Site, the shafts could include early features, perhaps dating to the use of Copper Tankard, an 18th century copper mine (MCO39019). This is located to the south-west of the proposed development area, or other early mines in the area, preceding the development of South Crofty; Cornwall's last working tin mine (MCO45907). These features are potentially significant for the evidential value they could provide for understanding the early history of mining in the area.
- 2.11 A map of the historic landscape character supplied with the latest Cornwall HER data shows the area covered by the current application to all be classified as 'Industrial: disused'. Information supplied by the HER confirms that no Portable Antiquity Scheme finds have been made close to the Site.

3. AIMS AND OBJECTIVES

- 3.1 The aims and objectives of the watching brief are to determine the presence or absence of archaeological deposits and/or remains, and if present, to record the character, date location and preservation of any archaeological remains on Site and to record the nature and extent of any previous damage to archaeological deposits or remains on Site. This information will enable Cornwall Council to identify and assess the particular significance of any archaeological heritage assets noted at the Site, and to consider the impact of the proposed development upon that significance and, if appropriate, develop strategies to avoid or minimise conflict between heritage asset conservation and the development proposal, in line with the National Planning Policy Framework (DCLG 2012).

4. METHODOLOGY - ARCHAEOLOGICAL WATCHING BRIEF

- 4.1 The definition of an archaeological watching brief is:

"a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land or underwater, where there is a possibility that archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive." (ClfA, 2020)

- 4.2 The purpose of an archaeological watching brief is to:

a). allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works

b). provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard. (ClfA 2020)

- 4.3 The watching brief will record any archaeological remains in a safe way as work progresses on a development. Work may be stopped for short periods while recording

is completed, or when access is restricted, recording may be completed from a safe position and artefacts/ecofacts retrieved from spoil generated during groundworks.

- 4.4 The archaeological contractor will be afforded sufficient time, space and resources to investigate any potential archaeological deposits or features to their satisfaction in order to meet the aims and objectives of this specification.
- 4.5 Where possible, all groundworks will be undertaken by a mechanical excavator equipped with a toothless grading bucket. All machining will be conducted under constant archaeological supervision and will cease when the first archaeological horizon is revealed.
- 4.6 Where archaeological features are exposed, then as a minimum, features and deposits will be investigated using hand tools to the following sample levels; the full excavation of small discrete features (pits, postholes etc, but a sample only of features present in high numbers, e.g. stakeholes), half-sectioning (50%) of larger discrete features and, long linear features will be sampled along their length – and to investigate terminals, junctions and relationships with other features. Should the above percentage proportions not yield sufficient information to allow the form and function of archaeological features/deposits to be determined, then full excavation of such features/deposits may be required. Each context will be recorded on a pro-forma context sheet by written and measured description. Additional excavation may also be needed for the taking of palaeo-environmental samples and recovery of artefacts. Features that are clearly of modern or later post medieval date may not be excavated. Should in-situ structural remains be encountered, then sufficient excavation will be undertaken to confirm the function, sequence, chronology and method of construction.
- 4.7 If either complex or extensive archaeological features and stratigraphy, or deposits that are worthy of preservation in-situ are exposed, then excavation will cease so as not to compromise the integrity of the archaeological record. The client and the Local Planning Authority (LPA) archaeologist will be informed and no further works on these features will be undertaken until a suitable mitigation strategy has been agreed by all parties.
- 4.8 An adequate digital photographic record of the archaeological works will be compiled in both section and plan. All excavated features and deposits will be photographed. A selection of representative feature group/area shots will also be taken along with

general working shots to illustrate the general nature of the works. A photographic scale and north arrow will be included in detailed photographs.

- 4.9 All excavation of exposed archaeological features shall be carried out stratigraphically by hand and recorded according to ClfA guidelines and best practice. All features/deposits will be recorded by drawn plans (scale 1:20 or 1:50, or electronically using Leica GPS as appropriate) and drawn sections (scale 1:10 or 1:20 as appropriate). All scale drawings shall be undertaken at a scale appropriate to the size and/or significance/complexity of the archaeological features to allow accurate depiction and interpretation.
- 4.10 The geotechnical investigation report (Terrafirma 2019) confirmed three mine shafts and four suspected shafts within the application Site (Fig 8). The report makes clear that shafts 2 and 3 (Fig 9) will need consolidation works and further investigation as part of development (Terrafirma, Executive Summary 2019). The summary also makes clear that the mining investigation has identified the potential for shallow workings and/or un-recorded shafts in some areas, which will require further investigation. Made ground was found across the entire site, generally deepening towards the west and south-west, with the underlying bedrock identified at a depth of between 1.2m and 55m below current ground level. It also recommends that the made ground is fully excavated below and 5m out from the footprint of all the proposed buildings, due to the potential for un-recorded mine workings (proposed building locations shown in green, Fig 9).
- 4.11 It is proposed that an archaeological watching brief be undertaken at all times of ground-breaking and ground-reduction during the proposed development, especially within the area of the known/suspected shafts, and in conjunction with any further mining survey and ground disturbance associated with the works. The monitoring of the watching brief will consist of a continuous presence, however if the results are of a limited nature, then this may be reduced to an intermittent watching brief, but only upon agreement with the HEP (Arch).

Artefacts

- 4.12 Any artefacts will be recovered and retained for processing and analysis in consultation with relevant specialists. Artefacts from topsoil, subsoil and unstratified contexts will normally be noted and may be discarded unless they are of intrinsic interest or their further examination is considered necessary for the interpretation of a

site. All artefacts from stratified excavated contexts will be collected, except for large assemblages of post-medieval or modern material. Such material may be noted and discarded or, if appropriate, a representative sample may be retained. Spoil will be examined for the recovery of artefacts; a metal detector may be used to enhance the recovery of metal finds.

- 4.13 All metal finds, and other typologically distinct or closely dateable artefacts will be recorded three-dimensionally.

Environmental remains

- 4.14 Due care will be taken to identify deposits which may have environmental potential and, where appropriate, a programme of environmental sampling will be initiated in preparation for scientific assessment/analysis/dating in accordance with English Heritage guidelines (English Heritage 2011). The sample strategy will either consist of bulk soil samples (sampling 100% or 40 litres, in labelled 10 litre plastic sample tubs) or vertical sediment columns – ‘monolith tins’ and will be examined for diatoms, insect, plant macrofossils and molluscs. The sampling strategy will be adapted for the specific circumstances of this site but will follow the general selection parameters set out in the following paragraphs.
- 4.15 All samples will be fully recorded and labelled with a register of samples made and sampling pro-forma record sheets completed for all samples taken which will include the following information: sample type, reason for sampling, sample size, context, sample number, spatial location, date, context description, method and the percentage of the context sampled. The samples will be recorded on the relevant site section drawing and photographs of the sample locations taken.
- 4.16 Bulk samples will be stored in sealed containers until off-site. Bulk samples will be processed using the standard flotation methods with the following mesh sizes: 5.6mm, 4mm and 500 micron Bulk samples will be sub-sampled as appropriate.
- 4.17 Monolith tin samples, up to 500mm in length, will be overlapped in the standard way to allow for a continuous sample of an entire sequence.
- 4.18 Secure, phased deposits, especially those relating to settlement activity and/or carbonised or waterlogged organic deposits will be considered for sampling for the recovery of charcoal, charred plant and mineralised remains. Any cremation-related

deposits will be sampled appropriately for the recovery of cremated human bone and charred remains. If any evidence of potential in-situ metal working is found, suitable samples for the recovery of slag and hammerscale will also be taken.

- 4.19 If sealed waterlogged deposits are encountered, a sampling strategy will be considered for the recovery of waterlogged remains. The taking of sequences of samples for the recovery of molluscs and/or waterlogged remains will be considered through any suitable deposits. Monolith samples may also be taken from suitable deposits as appropriate. All samples will be recovered and recorded using current guidelines (English Heritage 2011: *Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation*).
- 4.20 The project will be organised so that specialist consultants (such as OSL, archaeomagnetic dating and dendrochronology) and the regional Historic England science advisor, can be called upon to advise the works if/when necessary.
- 4.21 Sample processing and reporting will be undertaken by relevant specialists.

Treasure

- 4.22 Upon discovery of treasure, these will be removed to a safe place and reported to the local coroner within 14 days in accordance with the Treasure Act 1996 and the Code of Practice referred to therein. Suitable security measures will be taken to protect the finds from theft. The definition of 'Treasure' is provided within the Code of Practice of the above act and primarily refers to items of gold and/or silver.

Human remains

- 4.23 If the presence of potential human remains is encountered, then small slots will be hand-excavated across any suspected burial features (inhumations or cremated bone deposits) in order to confirm the presence and condition of any human bone. Where disturbance is unavoidable, or where full exhumation of the remains is deemed necessary, then their excavation and removal will only be undertaken on receipt of the appropriate licence from the Ministry of Justice. All excavation of human remains and associated post-excavation processes will be in accordance with the standards set out in ClfA Technical Paper No 7: *Guidelines to the Standards for recording Human Remains* (ClfA 2004).

4.24 All works will be carried out in accordance with the Code of Approved Practice as set out by the Chartered Institute for Archaeologists. Accordingly, the project team will abide by the ClfA's code of approved practice.

4.25 Any variation of the above will be undertaken in consultation with the LPA.

5. STAFF AND TIMETABLE

5.1 This project will be under the management of Simon Sworn, ACIfA, Senior Project Officer - Fieldwork Manager. Simon Sworn has 26 years of experience of commercial archaeology, including the leadership of the extensive archaeological works undertaken at Hemerdon Mine, Devon (2013 - 2014), which included below and above ground recordings of a vast array of mining activities, ranging from the early medieval period through to the mid-20th century. He has also worked across Cornwall, including further mining works at Treloyhan Manor, St. Ives (2017). Other members of the team will all have relevant knowledge and experience of both the archaeological works and the heritage landscape, including the mining landscape in Cornwall (details available upon request).

5.2 The staffing structure will be organised thus: the project manager will direct the overall conduct of the fieldwalking as required during the period of fieldwork. Day to day responsibility, however, will rest with the Project Leader who will be on-site throughout the project: this may be one and the same. The watching brief will be carried out by permanent staff members of ISCA Archaeology, all with suitable experience of this type of investigation and constantly adhering to the ClfA's Code of Conduct.

5.3 It is envisaged that the project will require approximately **XX days**' fieldwork. Analysis of the results and subsequent reporting will take up to a further four weeks, longer if dictated by specialist reporting, etc.

5.4 Depending upon the nature of the deposits and artefacts encountered it may be necessary to consult a number of local and/or national specialists who will be invited to advise and report on specific aspects of the project.

6. POST-EXCAVATION, ARCHIVING AND REPORTING

6.1 Prior to work commencing, a site code for the project will be obtained from Royal Cornwall Museum (RCM), which at the present time is currently closed due to the

Covid pandemic. Following the completion of the watching brief fieldwork, any artefacts and environmental samples will be processed, assessed, conserved and packaged in accordance with all relevant guidelines.

- 6.2 The level of reporting will be confirmed with the LPA on completion of the watching brief. If little or no archaeological deposits are exposed, this is likely to restrict its publication value and it would be anticipated that a short publication note only will be produced (with the WSI also included as a final appendix to the report), suitable for inclusion within an appropriate local archaeological journal.
- 6.3 Once the report has been approved by HEP (Arch) and a copy formally submitted and accepted by the LPA, a summary of information will be entered onto the OASIS online database of archaeological projects in Britain, which will include the OASIS reference number, and the report uploaded before the planning condition will be discharged.
- 6.4 If an illustrated report is required, then this will be compiled on the fieldwork results. The extent and nature of this report will be confirmed with the LPA upon completion of the watching brief. Copies of the report (pdf format) will be distributed to the client for submission with HEP (Arch). The report may vary upon the nature and extent of any archaeological deposits present, but at a minimum will consist of:
- A report number, date and the OASIS reference number
 - A non-technical summary
 - a description and analysis of the methodology
 - a summary of the historical background of the area and the site
 - a description of the results
 - an assessment of any artefact/palaeo-environmental analysis undertaken
 - a plan showing location of the site
 - plans and sections of any archaeology present and a selection of appropriate photographs.
 - relevant historic maps - if appropriate
 - an index of contexts as an appendix.
- 6.5 The watching brief archive will be held by ISCA at its office in Exeter until such time as all archaeological works at the site have been confirmed as completed. ISCA will then notify the LPA and make arrangements with the RCM for the deposition of the

site archive and, subject to agreement with the legal landowner(s), the artefact collection. At present, the RCM is closed due to the Covid pandemic and until such time as it reopens, the archive and all associated material will be stored at the ISCA office in Exeter. A digital archive (comprising digital photographs and other relevant born-digital data) will be submitted to the Archaeological Data Service (ADS).

6.6 The archive will be concluded within 6 months of the completion of the final report.

7. HEALTH AND SAFETY

7.1 All archaeological staff will operate under ISCA's Health and Safety Policy and any other additional requirements set out by main site contractor. All works will be carried out in accordance with (but not limited to) the Health and Safety at Work Act 1974 and all subsequent Health and Safety legislation. A site-specific Project Health and Safety Plan will be formulated prior to commencement of fieldwork setting out the site-specific health and safety policies that will be enforced in order to reduce to an absolute minimum any risks to health and safety.

7.2 In accordance with ISCA Health and Safety Policy, the archaeological site representative will be responsible for ensuring that all operations under his/her control will be carried out in accordance with all details laid out in 7.1.

7.3 All archaeological staff will not work, or be asked to work, in unsafe or unhealthy conditions, even where not to do so may result in the possible under-recording of the archaeological resource.

7.4 All site staff carry Construction Skills Certification Scheme (CSCS) cards and senior members will have up-to-date first aid qualifications.

7.5 On-site archaeologists will undertake any site safety induction course provided by the Client. The Client will also provide any details of all known buried services or other below- and above-ground hazards and provide specific guidance on how works should be undertaken around those hazards. Health and safety requirements will be always observed by all archaeological staff working on site, particularly when working with machinery, deep excavations, standing buildings and any other hazards.

- 7.6. Appropriate PPE will be always employed. As a minimum: high-visibility jackets, safety helmets and protective footwear will be worn. Additional PPE (such as gloves, glasses, ear-defenders etc) will be worn as and when required.
- 7.7 If the depth of any excavations or trenching exceeds either 1.2 metres or is excavated through un-stable ground, a dynamic risk assessment will be undertaken to determine the stability of the excavation. If necessary, excavated sides will be shored or stepped to enable the archaeologists to examine and if appropriate record any features. A vigorous risk assessment methodology (shoring, stepping etc.) for work in any deeper trenches will be developed with the Client and the groundcrew to ensure only the safest possible working conditions for ISCA and all on-site personnel. The presence of known and potential mine shafts will be fully assessed prior to any work taking place.

8. INSURANCES AND QUALITY CONTROL

- 8.1 ISCA carries Public Liability Insurance to a limit of £5,000,000 and Professional Indemnity Insurance to a limit of £250,000.
- 8.2 ISCA is constantly committed to the highest standard of professional ethics and technical standards and adheres to the ClfA and Historic England guidelines.
- 8.3 The products and work undertaken will be carried out by professional archaeologists overseen by supervisors of at least ACIfA-level competence.

9. MONITORING

- 9.1 Notification will be made to HEP (Arch) at least one week prior of the start of site works so that there will be opportunities to visit the site and check on the quality and progress of the work if required. Due to the present Covid restrictions, it is envisaged that on-site meetings will only take place if there are significant issues that need addressing. ISCA will keep HEP (Arch) informed of the works as they progress, and once on-site works are complete, there will be post-fieldwork monitoring meeting (email/phone call) to discuss the next stages regarding the fieldwork results. Access will also be facilitated for visits by any specialists if only deemed necessary and within the present government guideline. The project is currently anticipated to commence on **XXXX - date**.

10. QUALITY ASSURANCE

10.1 ISCA endorses the *Code of Conduct* (ClfA 2014) and the *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology* (ClfA 2014). All ISCA Project Managers and Project Officers will uphold these to their fullest.

11. REFERENCES

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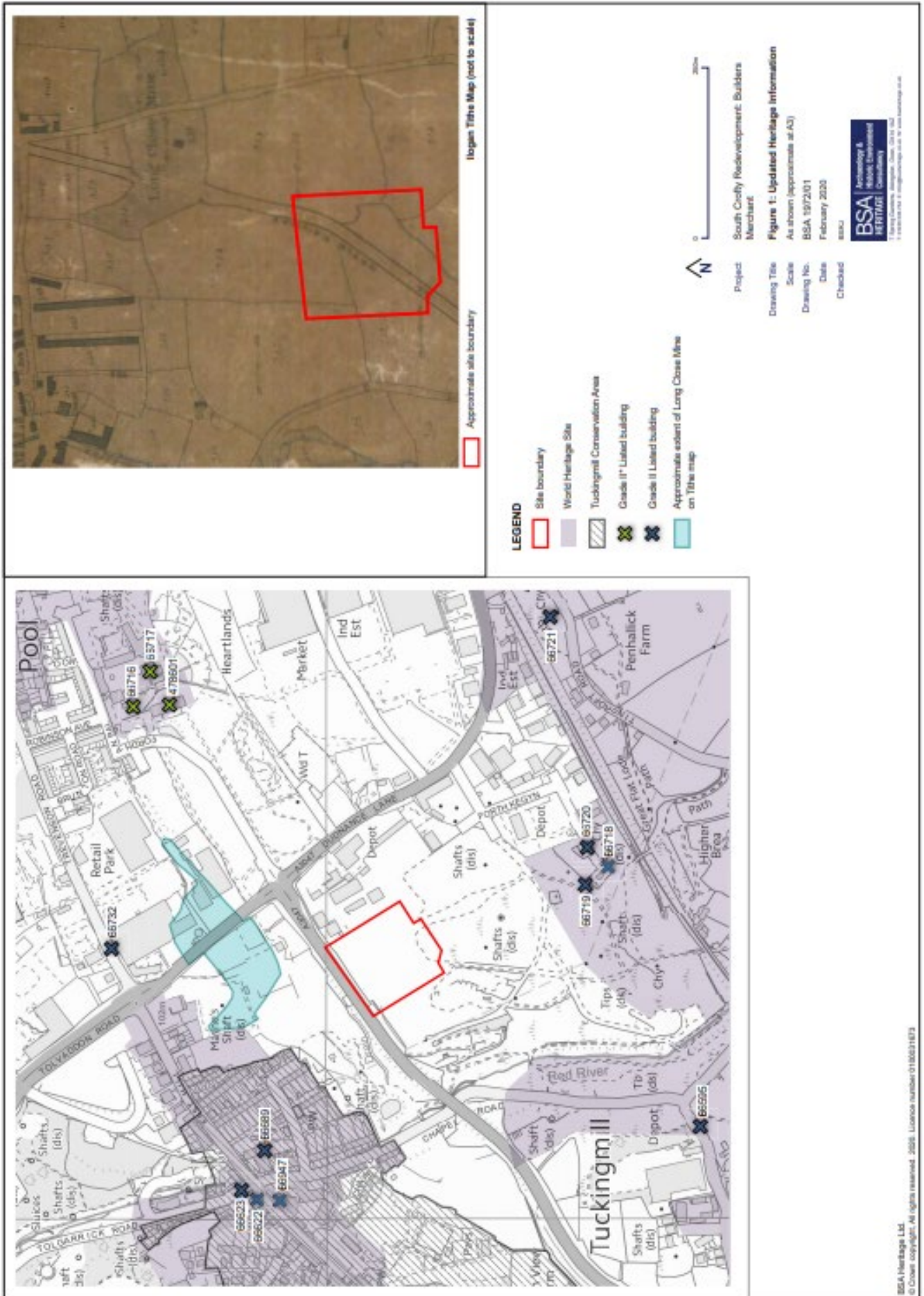
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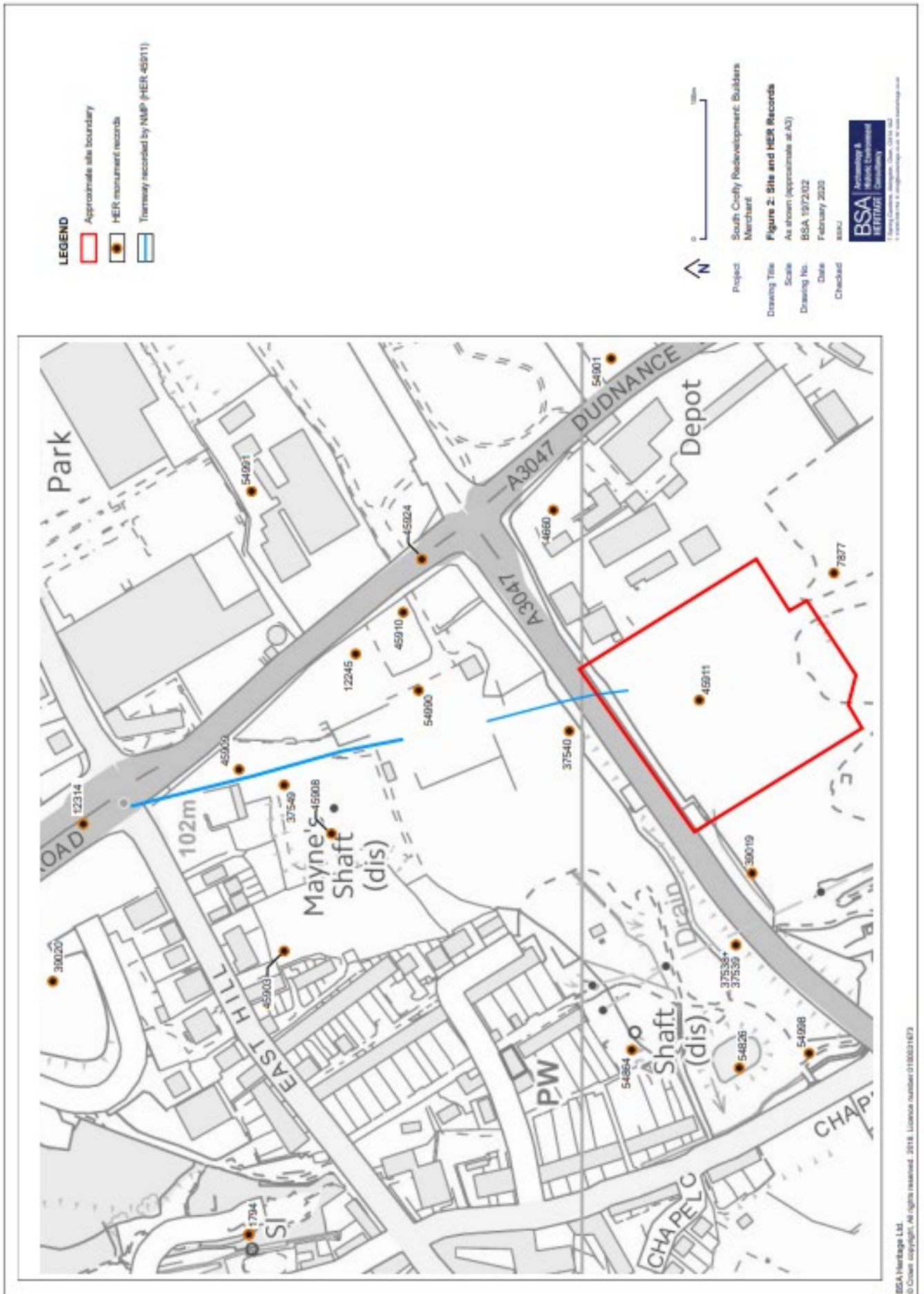
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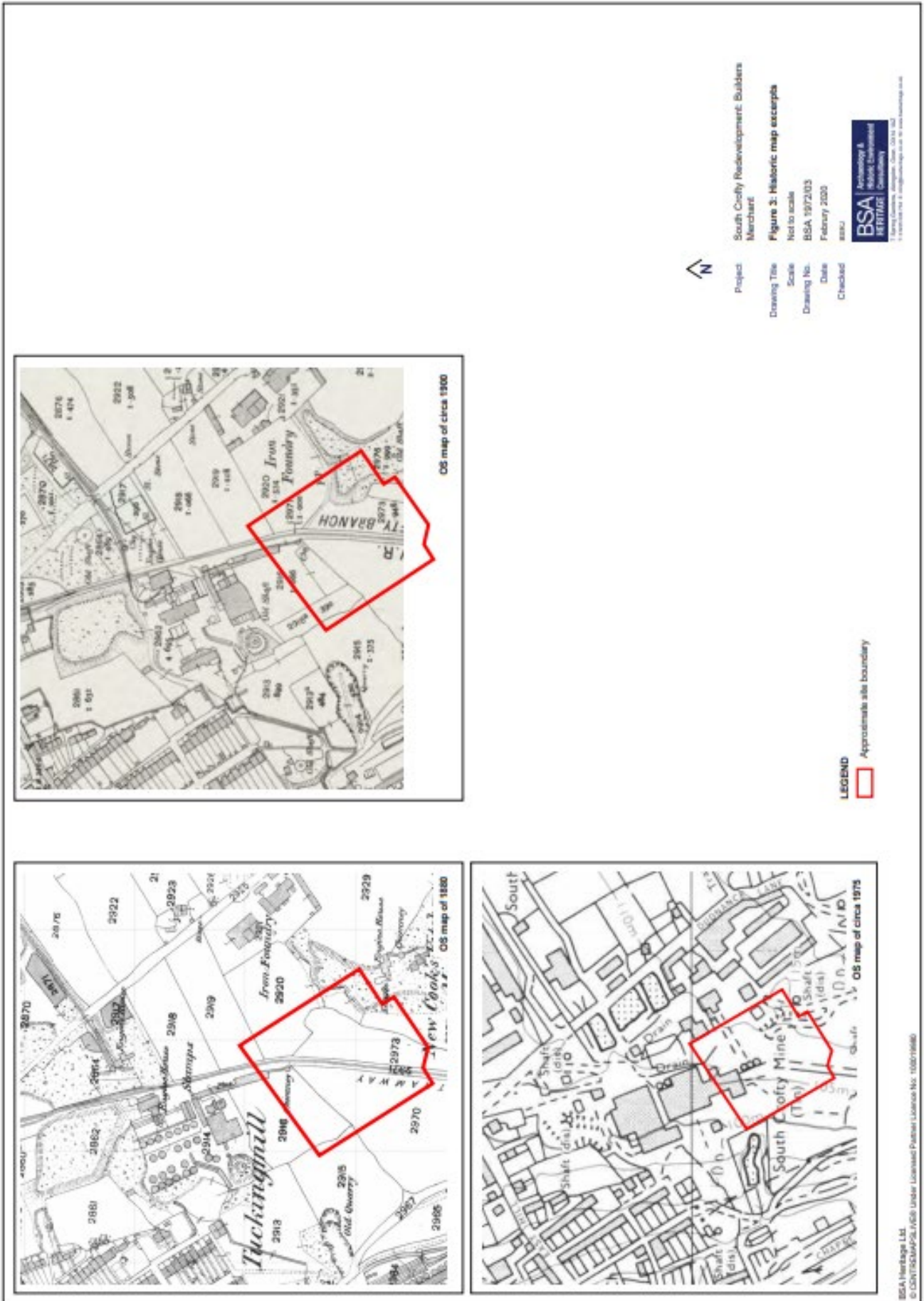
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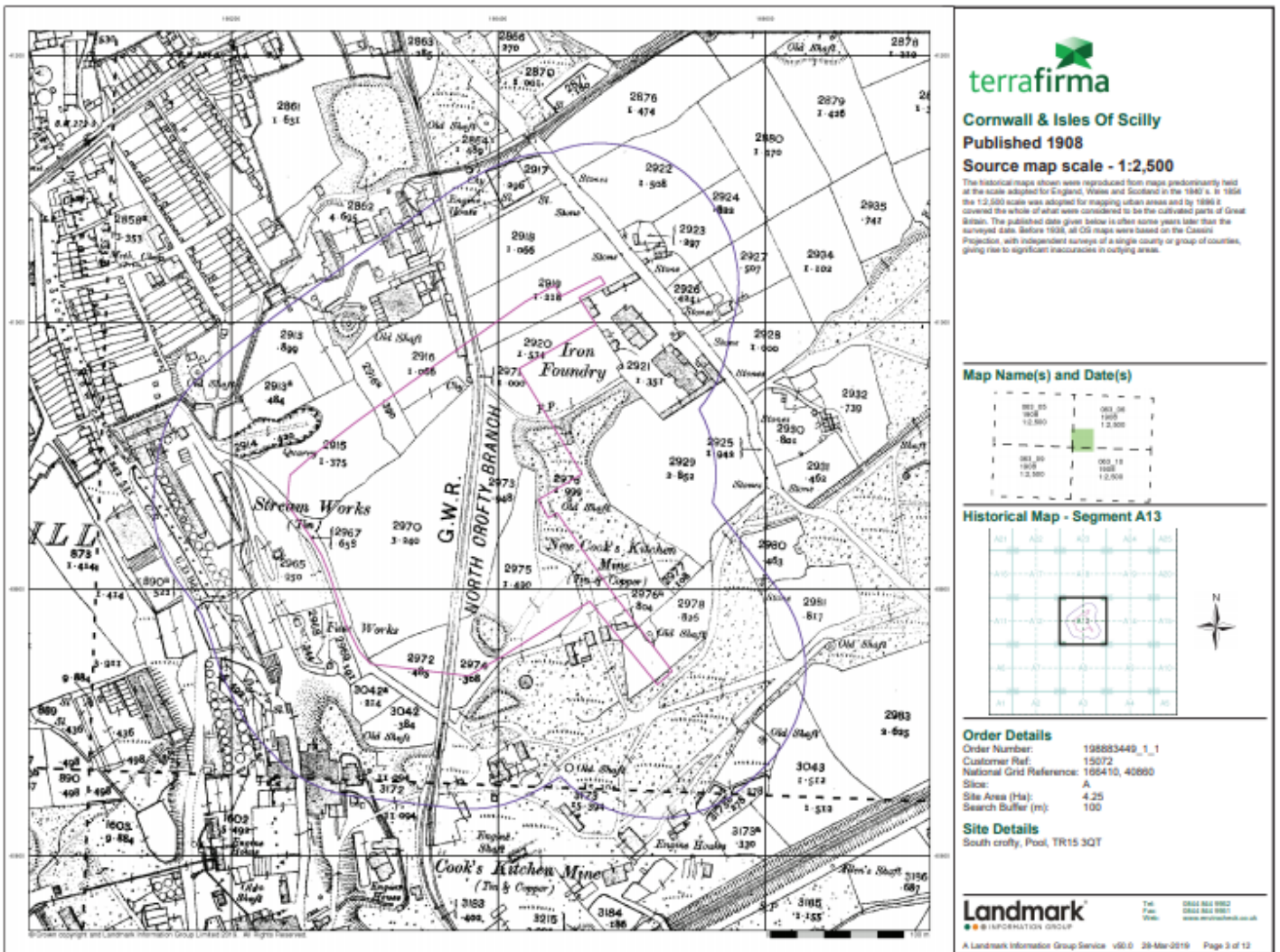


Fig 4. 1908 Map

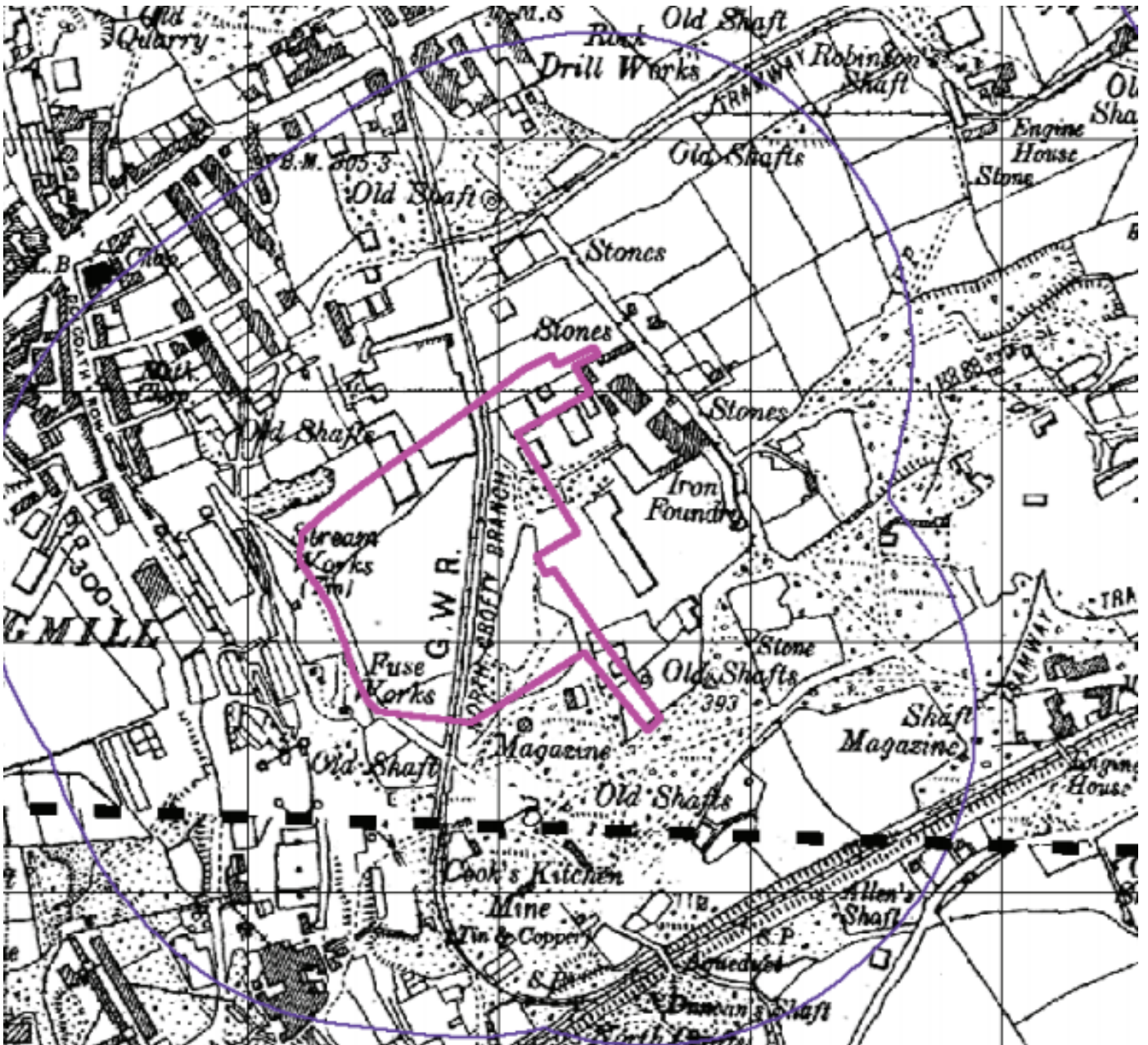


Fig 5. Ordnance Survey Map 1938

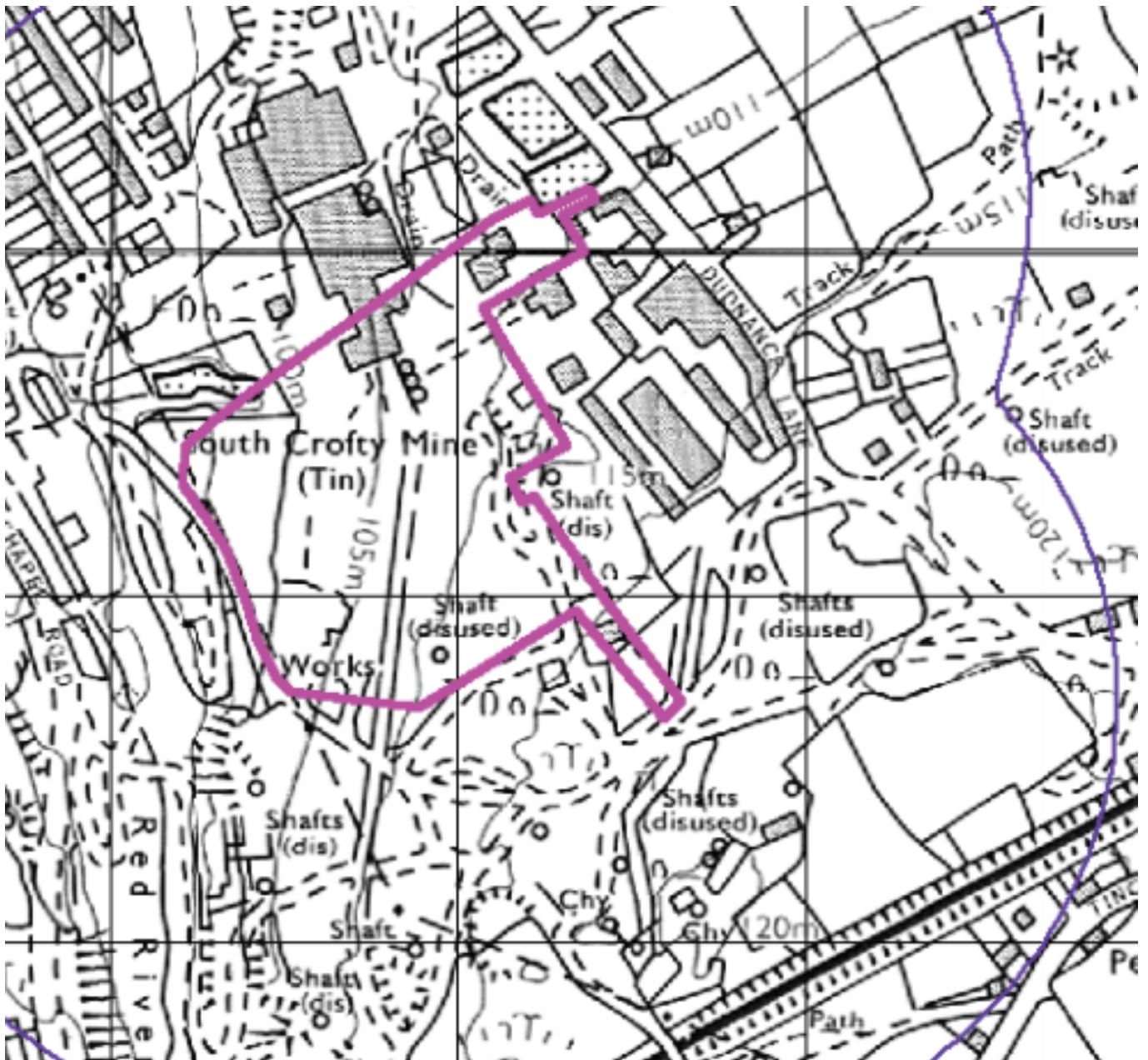


Fig 6. Ordnance Survey Map 1979

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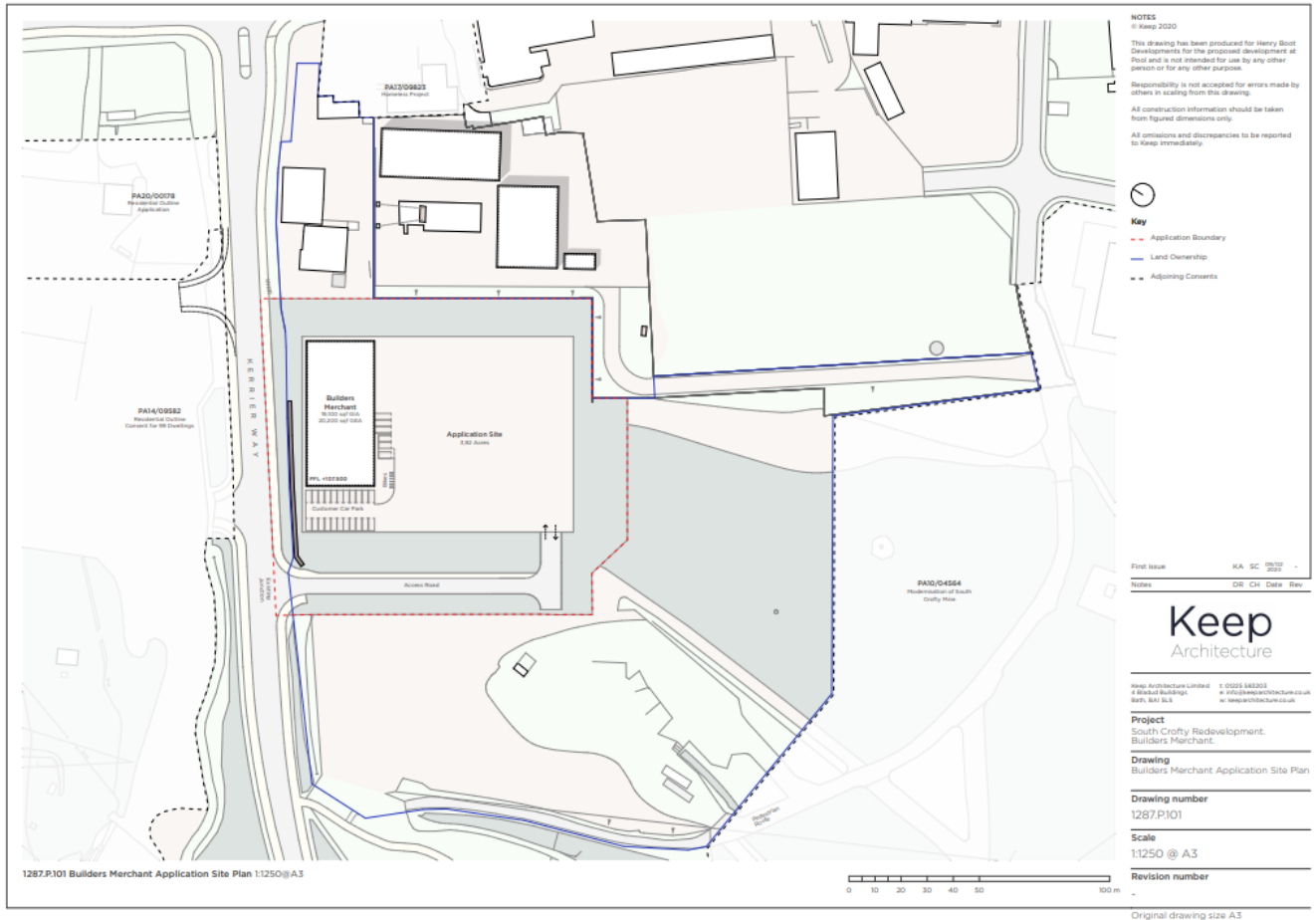


Fig 7. Proposed building layout plan

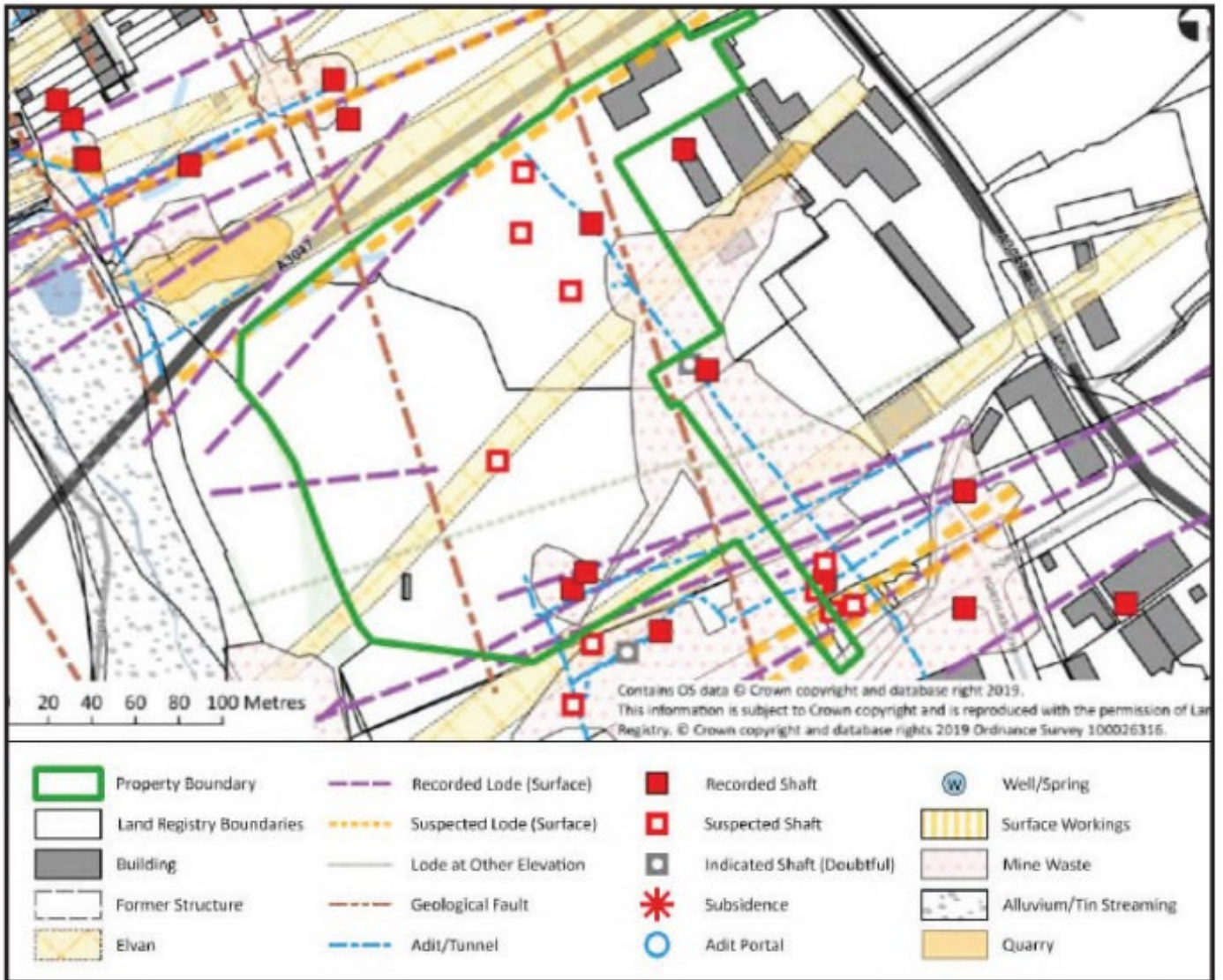


Fig 8. Location of known shafts (in-fill red squares) and suspected shafts (un-filled red squares) within the proposed development area

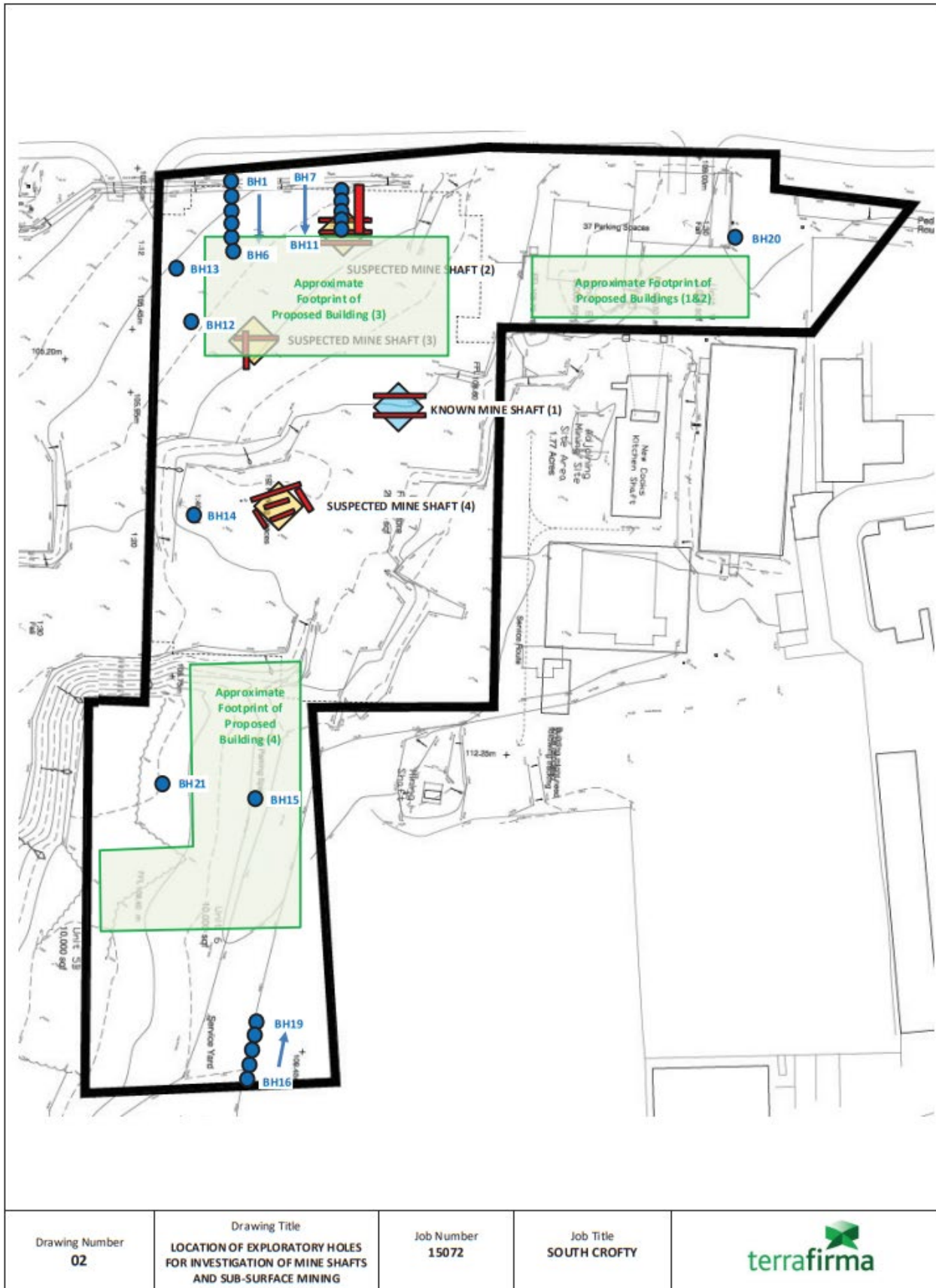


Fig 9. Location of known and suspected mine shafts in relation to the proposed new buildings which will be subjected to the archaeological watching brief.