

Archaeology Wales

East Street, Dowlais Merthyr Tydfil

Archaeological Desk Based Assessment



By
Sian Thomas & Philip Poucher

Report No. 1580

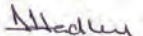
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Archaeological Desk-Based Assessment

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CONTENTS

Non-Technical Summary	1
1. Introduction	2
2. Site Description	2
3. Methodology	3
4. Archaeological and Historical Background	4
4.1 Previous Archaeological Studies	4
4.2 The Historic Landscape	5
4.3 Scheduled Ancient Monuments	6
4.4 Listed Buildings	7
4.5 Known Archaeological Remains and Historical Development	8
5. Map Regression	11
5.1 Dowlais Iron Works Estate Maps	11
5.2 Merthyr Tydfil Tithe Map of 1850	12
5.3 Ordnance Survey Plan of 1875 & Map of 1876	12
5.4 Ordnance Survey Map of 1900	13
5.5 Ordnance Survey Map of 1920	13
5.6 Ordnance Survey Map of 1957	13
5.7 Ordnance Survey Map of 1963	13
5.8 Ordnance Survey Map of 1972-4	14
5.9 Ordnance Survey Map of 1983	14
6. Aerial Photographs and Lidar	14
6.1 Aerial Photographs	14
6.2 Lidar	15
7. Site Visit	15
8. Impact Assessment	16
8.1 Assessment of Archaeological Potential and Importance	16
8.2 Previous Impacts	16
8.3 Potential Impacts from the Proposed Development	16
9. Conclusions	20
9.1 Impacts on Designated Assets	20
9.2 Impacts on Non-designated Assets	20
9.3 Mitigation	21
10. Sources	22
Appendix I: Gazetteer of sites recorded on the regional HER	
Appendix II: Designated Archaeological Sites	
Appendix III: Conservation Area Description	
Appendix IV: Specification	
Appendix V: Archive Cover Sheet	

List of Tables

Table 1: Sites of archaeological interest affected by the proposed development

List of Figures

Figure 1: Location map
Figure 2: Site plan
Figure 3: Designated and historic landscapes in the surrounding area
Figure 4: Designated archaeological sites in the surrounding area
Figure 5: Designated archaeological sites and landscapes within a 1km search area
Figure 6: Non-designated archaeological sites within a 1km search area
Figure 7: Archaeological sites in the immediate vicinity of the site
Figure 8: Extract from the Ordnance Survey map of 1876
Figure 9: Extract from the Ordnance Survey map of 1900
Figure 10: Extract from the Ordnance Survey map of 1920

List of Photos

Photos 1-4: Aerial views of the site
Photos 5-10: Historic photos of the site
Photos 11-22: Views of and from the proposed development site
Photos 23-26: Views towards the proposed development site from surrounding designated archaeological sites

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Non – Technical Summary

In May 2017 Archaeology Wales was commissioned by Merthyr Tydfil Housing Association to carry out an archaeological Desk-Based Assessment and Site Visit to determine the archaeological potential of land at East Street, Dowlais, Merthyr Tydfil. The assessment has been undertaken as part of the pre-planning application investigation of the site.

The site lies within the registered Historic Landscape (HLW (MGL) 2) and more specifically within the Historic Character Area of Dowlais (HLCA 007). The proposed development is considered to have a Minor impact on this Historic Landscape Character Area.

The site also lies within the Dowlais Conservation Area (WAL/MT/Dowlais). This is a smaller area, and the open space upon which the proposed development is located is a noted character element, therefore the proposed development is considered to have a Moderate impact on this Conservation Area.

No Listed Building will be directly affected, but three Grade II Listed Buildings (Dowlais Works Stables - LB 11478, St Johns Church - LB 17931 and Dowlais Public Library - LB 27083) stand in relatively close proximity and will be indirectly affected by the proposed development. This is considered to have a Minor/Moderate impact on these buildings. The design detail may be a factor in the impact the development will have on the settings of the three Listed Buildings noted above. One further Grade II Listed Building, Dowlais Works Blast Engine House (LB 11491), lies further afield but views of this building will also be affected, however this is considered to be a Negligible impact on this Listed Building.*

No further Listed Buildings, Scheduled Ancient Monuments or Historic Parks & Gardens will be impacted upon by the proposed development.

Research has highlighted the potential for buried archaeological remains to be present within the proposed development site, comprising the below-ground remains of 19th century industrial workers housing (NPRN 18385). The extent and survival of any such remains is uncertain, and may have been impacted upon by subsequent demolition and landscaping works. Such remains would be considered to be of Local interest, and the proposed development is considered to have a Moderate impact on any such remains.

It is recommended that an archaeological watching brief be maintained on development works in order to identify and record any evidence of 19th century urban development.

1 Introduction

- 1.1 In May 2017 Archaeology Wales (AW) was commissioned by Merthyr Tydfil Housing Association to carry out an archaeological Desk-Based Assessment of a proposed residential development on land at East Street, Dowlais, Merthyr Tydfil (henceforth – the site), centred on NGR SO 06726 07816 (Figures 1 & 2, AW Project Number 2521).
- 1.2 This assessment has been prepared prior to the submission of a planning application. A Specification for the Desk-Based Assessment was produced by AW in May 2017 and approved by Glamorgan-Gwent Archaeological Trust Curatorial Division (GGAT-CD), who act as archaeological advisors to the local planning authority, in this case Merthyr Tydfil County Borough Council (henceforth – MTCBC) (see Appendix IV).
- 1.3 The purpose of the Desk-Based Assessment and Site Visit, which is detailed in the following report, is to provide MTCBC with the information they are likely to request in respect of the proposed development, the requirements for which are set out in Planning Policy WALES, Edition 9, November 2016, Chapter 6, and Welsh Office Circular 60/96. The work is to highlight and assess the impact upon standing and buried remains of potential archaeological interest and to ensure that they are fully investigated and recorded if they are disturbed or revealed as a result of subsequent activities associated with the development.
- 1.4 Planning permission will be sought to develop the site for ten dwellings as a series of semi-detached properties, along with associated infrastructure.
- 1.5 The AW project number for the work is 2521 and the site code is ESD/17/DBA. The project details are summarised on the Archive Cover Sheet (Appendix V).

2 Site Description

- 2.1 The site is located on the north-eastern edge of Merthyr Tydfil within the area of Dowlais, 2.4km to the northeast of the centre of Merthyr Tydfil. The proposed development site is currently undeveloped, consisting of a small area of grass within a residential area. The ground surface slopes from north-northwest to south-southeast, with the upper part of the site to the north-northwest being approximately 309m above Ordnance Datum (OD).
- 2.2 The site is bounded on the western side by a car park and the northern boundary follows the line of a residential street before deviating to follow the line of an extant property and its grounds. On the southern and eastern sides the site is bounded by residential streets, and lies in a largely mid to late 20th century suburban residential area, although buildings of early 19th century are located along Upper Union Street, which bounds the site to the north. These comprise the Church of St John to the north-west of the site and the Dowlais Works Stables to the north-east (LBs 17931 and 11478).
- 2.3 Residential development along East Street, which forms the southern boundary of the site, comprises late-20th century two-storey semi-detached housing. Further similar late-20th century semi-detached residential development lies along Market Street just to the east of Commercial Street, which forms the eastern boundary of the site. The

site is bounded to the west by the car park of Dowlais Public Library (LB 27083), with the building itself being located on the junction of Union Street and Upper Union Street.

- 2.4 The proposed development site overlies the South Wales Lower Coal Measures, which comprise mudstones and siltstones that are coal bearing. The superficial deposits overlying this within the area of the site is comprised of Devensian Till, formed during Ice Age conditions (BGS 2017).
- 2.5 Data from a bore hole located 60m to the north of the site show that several deposits overlay the till within this area, with the upper deposit consisting of a made ground of black soil, ashes and gravel with a thickness of 0.50m (BGS 2017: Ref Number SO00NE217). A further bore hole 120m to the northeast shows similar deposits, again with an upper deposit of made ground consisting of clay with gravel, coal fragments and ash, which has a thickness of 0.30m (BGS 2017: Ref Number SO00NE216). This data indicates that the ground level of the area has been raised, likely by works associated with Ivor Iron Works located to the north of the proposed development site.

3 Methodology

- 3.1 The methodology for this assessment follows that set out in the approved Specification (Appendix IV).
- 3.2 The primary objective is to assess the potential impact of the development proposals on the historic environment by means of a detailed desk top study and site visit. This will help inform future decision making, design solutions and potential mitigation strategies. The aim will be to make full and effective use of existing information in establishing the archaeological significance of the site, to elucidate the presence or absence of archaeological material, its character, distribution, extent, condition and relative significance.
- 3.3 The work includes a comprehensive assessment of regional context within which the archaeological evidence rests and aims to highlight any relevant research issues within national and regional research frameworks.
- 3.4 This report provides information of sufficient detail to allow informed planning decisions to be made which can safeguard the archaeological resource. Preservation *in situ* has been advocated where at all possible, but where engineering or other factors could result in the loss of archaeological deposits, preservation by record has been recommended.
- 3.5 This assessment considers the following:
 - a) The nature, extent and degree of survival of archaeological sites, structures, deposits and landscapes within the study area through assessment of various readily available primary sources:
 - Collation and assessment of all relevant information held in the regional HER at GGAT within a 1km radius of the site;
 - Collation and assessment of all designated archaeological sites (Scheduled Ancient Monuments, Listed Buildings, Historic Parks and Gardens, landscapes, Conservation Areas) within a 1km radius of the site;

- Assessment of all available excavation reports and archives including unpublished and unprocessed material affecting the site and its setting;
- Assessment of aerial photographic (AP) and satellite imagery evidence;
- Assessment of archive records held at the County Archive, the National Library of Wales (NLW) and the Royal Commission on Ancient and Historical Monuments in Wales (RCAHMW);
- Records held by the developer e.g. bore-hole logs, geological/geomorphological information, aerial photographs, maps, plans;
- Map regression analysis using all relevant cartographic sources e.g. all editions of the Ordnance Survey County Series, Tithe and early estate maps (as available);
- Place-name evidence;
- Internet sourced satellite imagery and Lidar imagery as available;
- Assessment of the records held at the Portable Antiquities Scheme;
- Historic documents (e.g. charters, registers, estate papers).

b) The significance of any remains in their context both regionally and nationally and in light of the findings of the desk based study.

c) The history of the site, based on the areas of research outlined above.

d) The potential visual impact of any proposed development on the setting of known sites of archaeological importance.

e) The potential for further archaeological remains to be present, which have not been identified in pre-existing archaeological records.

f) The potential for further work, with recommendations where appropriate for a suitable investigative and/or mitigation methodology.

3.6 This work conforms to the *Standard and Guidance for Archaeological Desk-Based Assessment*, issued by the Chartered Institute for Archaeologists (CIfA 2014).

4 Archaeological and Historical Background

4.1 *Previous Archaeological Studies*

4.1.1 The proposed development site has not been subject to any previously recorded archaeological investigations.

4.1.2 In the wider area surrounding the site a variety of archaeological studies are recorded. Between 2004 and 2010 GGAT undertook a Cadw-funded project examining the Ironworks and industrial landscapes of Southeast Wales (PRN E000954). This included research and field visits to the site of the Dowlais Ironworks and surrounding area, which is of particular importance in understanding the history and development of the proposed development site and its surrounds. A detailed description of the Dowlais ironworks is included in the Year 1 report (Roberts 2005). As part of the second year of this project research and field visits were carried out on the communication routes associated with these industrial landscapes, which included the Morlais tramroads to the northeast of the site (Roberts & Jones 2006).

- 4.1.3 The site lies within the Merthyr Tydfil Landscape of Outstanding Historic Interest (see below), as such the landscape surrounding the proposed development site has been assessed and characterised (PRN E004948). This characterisation is included in a report by GGAT (Roberts 2003).
- 4.1.4 In the mid to late 1990s the new route of the A465 to the north of the site was preceded by a series of desk-based assessments, field visits, geophysical surveys and ultimately intrusive archaeological fieldwork (PRN E005150). The results of the fieldwork were compiled in a report in 2004 (Spackman 2004).

4.2 *The Historic Landscape (Figures 3, 5 & 7; Appendix II & III)*

- 4.2.1 The proposed development site lies within the registered Historic Landscape of Merthyr Tydfil, which has been designated for its outstanding value (Cadw, HLW (MGL) 2). Merthyr Tydfil and its surrounding landscape have been designated as such due to the importance of the iron working remains that survive within the town and its environs. By the mid-19th century Merthyr Tydfil had become probably the largest iron working town in the world. Elements of the iron working landscape, which still survive include the blast-furnaces at the Cyfarthfa Ironworks, engine houses, calcining kilns, forges, remnants of the associated coal mining industry, water leats, tramroads, slag tips and terraced housing (Cadw et al 1998).
- 4.2.2 The Historic Landscape is divided into several character areas with the proposed development being located within the Dowlais Historic Landscape Character Area (HLCA 007). The Dowlais area is characterised as an Industrial Settlement. Dowlais originally comprised a scatter of cottages in the mid-18th century. Under the ownership of the Dowlais Iron Company the settlement evolved into part ribbon development and part planned grid system by the early 19th century. The settlement underwent major expansion in the mid-19th century, including an expansion of the grid system on company land, with more irregular settlement outside company land. The area contains a number of prominent public, educational and religious buildings. This area has been extensively redeveloped during the 20th century (Roberts 2003; HLCA 007).
- 4.2.3 The proposed development lies within a Conservation Area (WAL/MT/Dowlais). The **Dowlais Conservation Area was designated in 1998 and is considered to have 'Special Interest'**. This Area encompasses the core of the Dowlais settlement to protect the architectural, industrial, social and religious heritage of the area (Jones 2013). It is described thus:

Dowlais Conservation Area embraces the two areas with the richest **surviving examples of Dowlais' industrial, social and religious heritage**, which derive from the **peak of the town's worldwide influence in the 19th century** (*ibid*).

The area is grouped around a collection of historic buildings associated with the Dowlais and Ivor Iron Works. The character of the area is that of a network of attractive and imposing Georgian and Victorian buildings set in a continuously evolving townscape. These buildings, largely civic buildings, have direct links to the historic industry which previously dominated the area. Also included is one row of terraced housing along Market Street. Earlier buildings are predominantly of Pennant stone with ashlar trimmings and Welsh slate roofs. Later buildings of red and yellow

brick are characteristic of Merthyr Tydfil. The area affords good views to the east and south, and is surrounded by post-war housing. Areas of green space, which have replaced demolished housing, contrast sharply with the formal grand buildings, and has changed the essential local characteristics from a busy and crowded settlement centre to a spacious, open and green suburban area. The full description of the Conservation Area is included in Appendix III.

- 4.2.4 The site does not lie within any registered Historic Parks & Gardens. Cyfarthfa Castle, which lies approximately 2km to the west of the site, is surrounded by a Grade II* listed Park and Garden (GM1). The gardens were developed by the Crawshay family **around Cyfarthfa Castle, which is the most historically important Ironmaster's home in Wales.** The park and gardens act as a setting for the mansion and are in close proximity to the iron works.
- 4.2.5 The site lies within the Landmap Historic Landscape of Merthyr Tydfil (MRTHRHL005). Landmap Areas are not designated landscapes, but have been created to enable landscape quality to be taken into account in decision making, the boundaries of this landscape area is based in part upon the Historic Landscape Character Areas of the registered Historic Landscape of Merthyr Tydfil (see 4.2.1 & 4.2.2). This Landmap area is described **as an area of 'Outstanding'** value. This is due to the importance of Merthyr Tydfil as a nationally important industrial centre during the 18th and 19th centuries. Due to the ironworking industry Merthyr Tydfil expanded quickly from a small village in the 1750s to become the largest town in Wales by 1801. In recent years, there has been an expansion in social housing and extensive land reclamation. Despite the impacts from this development, the town and its environs, which includes the extant remains of the ironworks at Cyfarthfa, Dowlais and Ynysfach, form what has been characterised as 'a potent example of an internationally renowned industrial landscape of the 18th and 19th centuries' (Roberts, 2003).

4.3 *Scheduled Ancient Monuments (Figures 4 & 5; Appendix II)*

- 4.3.1 There are no Scheduled Ancient Monuments within a 1km search area around the proposed development.
- 4.3.2 The closest of the Scheduled Ancient Monument sites are the Sarn Howell pond and watercourses (GM494), which are located 1.7km to the south of the proposed development site. The scheduled area comprises a collection of water management features that are connected to the Dowlais Ironworks. The ironworks grew rapidly to become one of the largest in the world by the early 19th century and the water resources needed for the works were collected through an extensive system of reservoirs and water leats constructed on surrounding watersheds. The Sarn Howell watercourse was one of the principle water leats that brought water across the Cwm Bargoed watercourse for storage in the pond.
- 4.3.3 Three further Scheduled Ancient Monuments lie 2.3km to the northwest, on Morlais Hill. On the eastern edge of the hill is Morlais Hill Ring Cairn (GM563), thought to date to the Bronze Age. It is circular in shape and measures 26m in diameter and is enclosed within an earthen bank. To the west, on the ridge, are the remains of Morlais Castle (GM028). The Castle was constructed in the late 13th century by the Lord of Glamorgan, Gilbert de Clare. The Castle was captured by a Welsh rebellion by Madog

ap Llywelyn in 1294 and abandoned shortly after. The Castle remains are formed mainly of earthworks, although sections of the curtain wall still survive, partially buried likely due to later quarrying activity. To the west, at the base of the hill are the remains of the Merthyr Tramroad (GM594). The tramroad connected the lime quarries on Morlais Hill to the ironworks in Dowlais and Penydarren. This section of the tramroad runs for 600m around the base of the hill and terminates at the quarry on the north-western side of the hill.

4.4 *Listed Buildings (Figures 4, 5 & 7; Appendix 11)*

- 4.4.1 There are 13 Listed Buildings within the 1km search area around the proposed development site.
- 4.4.2 These listed buildings include seven Grade II* listed buildings (LBs 2915, 2676, 3121, 3126, 3140, 3142 & 85246); the remainder are all Grade II listed. No Listed Building lies within the proposed development site.
- 4.4.3 Three of these buildings are situated within 100m of the development site, the closest lies 34m to the west and comprises Grade II listed Dowlais Public Library (LB 27083), constructed in the early 20th century. Located 52m to the northwest is the Church of St John (LB 17931). This Anglican parish church was originally constructed in 1827 by the Dowlais Iron Company. It now stands derelict. The third building is the Grade II Dowlais Works Stables (LB 11478), 66m to the northeast. The stables were built in 1820 and form a square range extending back off the street front. Within the stable range are two further buildings, Stables House (LB 11477) built at the same time as the stables and Ivor English Congregational Church (LB 11489), constructed in 1860 and funded by the Wills tobacco family from Bristol.
- 4.4.4 Both the Grade II* Listed Buildings are located to the east and southeast of the proposed development. Approximately 250m to the east is the Former Guest Memorial Library (LB 11490), constructed between 1855-1863 as a memorial to Sir Josiah John Guest, former ironmaster at Dowlais. The exterior of the building is a classical style cruciform two-storey building, with a raised portico at the front, with pedimented wings and a long main hall range behind. The second Grade II* building is the Dowlais Works Blast Engine House (LB 11491). The Engine House is located approximately 187m to the southeast of the site. It operated as a blowing engine house that provided blast for the furnace plant at the Dowlais works. It was constructed between 1905-7, is 54m long and 15m high, and contained three blowing engines.
- 4.4.5 Approximately 270m to the north of the site is an industrial building that formed part of the Ivor Works (LB 27086). It was constructed in the 1920s, at which time Guest, Keen and Nettlefolds (GKN Ltd) were operating the works. The function of the building is unknown although it is likely to be the sulphate of ammonia plant, which was a by-product of coke production. To the northeast of this are rows of terraced housing, which were constructed in the mid-19th century for the iron workers. The curved corner house at the end of the terrace on Lower Row, 500m to the northeast of the site, remains largely unaltered. This house has been designated as it is the best surviving example of a corner house in this area (LB 27085).
- 4.4.6 The remaining Listed Buildings within the search area comprise: a 19th century Mile Post (LB 27084), located approximately 410m to the east; the Bethania Independent

Chapel, constructed in 1910 (LB 21314), which is 150m to the southwest; **St Iltyd's** Roman Catholic Church (LB 11517), located approximately 500m to the west. The church, the first Catholic Church to be constructed in the Welsh Valleys, was originally built in 1844 and had a large red brick addition built in 1894. The final Listed Building is an aqueduct built as part of the Dowlais free drainage system (LB 80964). Located on the edge of the search radius to the northeast of the site, it was built in 1860/1865 to carry water to a reservoir over an access route.

4.5 *Known Archaeological Remains and Historical Development (Figures 6 & 7; Photos 5-10; Appendix 1)*

- 4.5.1 There are 42 sites listed on the HER within 1km of the proposed development site. None of these lie within the proposed development area.
- 4.5.2 There are also 129 sites listed on the National Monuments Record (NMR) maintained by the Royal Commission of Ancient and Historical Monuments Wales (RCAHMW) within the same search area. These sites relate exclusively to the development of Dowlais in the 19th and 20th century, and include a variety of iron works, mines and associated industrial features, along with municipal features such as schools, libraries and chapels, and a large number of 19th century housing. Two sites are recorded in the proposed development area. To the east lies NPRN 18385, a row of mid to late 19th century workers housing, now demolished. To the south lies NPRN 19989, Stables House, and early 19th century dwelling. This however would appear to be incorrectly located and refers to the Stables House Listed Building (LB 11477) to the northeast.
- 4.5.3 There are no finds recorded with the Portable Antiquities Scheme within the search area (www.finds.org.uk). However, two Roman coins are recorded to the west, approximately 2km from the site. The closest of these was issued during the reign of Vespasian (IARCW-63DAE33DB6). Just to the west of this a further coin of Constantius II has been recorded. This coin was issued during his reign as Caesar between 330-335 A.D and is a nummus of GLORIA EXERCITVS type (IARCW-63DAE33DC9).
- 4.5.4 The non-designated are briefly described below, according to period, where they are incorporated into a summary of the historical development and archaeological potential of the area.

Prehistoric: Palaeolithic (c.450,000 – 10,000 BC), Mesolithic (c.10,000 – 4400 BC), Neolithic (4400 BC – 2300 BC), Bronze Age (2300 BC – 700 BC) & Iron Age (700 BC – AD 43)

- 4.5.5 There is currently no recorded evidence of Prehistoric activity within the 1km search area, although some activity is known within the wider landscape.
- 4.5.6 Remarkably little evidence of activity is recorded in the area until the Bronze Age with the exception of the chance find of a Neolithic stone axe in Merthyr Tydfil (PRN 478m). A number of cairns, Bronze Age funerary sites, are recorded at high points in the surrounding landscape. Clusters of such sites are known on Morlais Hill to the northwest (PRNs 830m, 1588m, SAM GM563), on Merthyr Common to the south (PRNs 473m-476m, SAM GM222) and at Blaencarno Common to the northeast (PRN 3146m).
- 4.5.7 One large Iron Age hillfort enclosure is recorded occupying the summit of Morlais Hill 2.3km to the northwest (PRN 831m, SAM GM028).
- 4.5.8 The lack of recorded prehistoric activity in the area would suggest a very low potential for archaeological sites of this date within the proposed development area.

Roman (AD 43 – c. AD 410) & Post-Roman/ Early Medieval (c. AD 410 – AD 1086)

- 4.5.9 There is currently no recorded evidence of Roman or early-medieval activity within the 1km search area. In the wider landscape the Romans established a fort (PRN 823m) at Penyardren within Merthyr Tydfil in *circa* 75AD. This would have been part of a network of forts, likely established soon after the Roman invasion of South Wales. Excavations suggest the fort was occupied until around 140AD. Although a cemetery, and more recently potential industrial activity, has been identified outside the fort, the location and extent of any associated civilian settlement is unknown. There is however little indication of Roman activity extending towards the proposed development area.
- 4.5.10 **St Tydfil's church (PRN 457m, LB 11449)**, which lies *circa* 2.6km to the southwest of the proposed development site, is believed to be a pre-Norman, early-medieval foundation. The church is reputedly built on either the site of the martyrdom of St Tydfil, or at a site she herself established in the late-5th century. An inscribed stone originally built in to the fabric of the church has been dated to the 8th to 10th century. Such a site may have attracted a small community or settlement around it, but there is little to indicate early-medieval activity extending towards the area of the proposed development site.
- 4.5.11 Although activity is recorded in the wider landscape, the potential for Roman or early-medieval occupation in the proposed development area is considered to be very low.

Medieval (1086 – 1536)

- 4.5.12 **St Tydfil's church likely remained the centre of activity in the area during the medieval period**, with the original settlement of Merthyr Tydfil growing up around it. This however does not appear to have expanded into a substantial settlement.
- 4.5.13 Around 2.4km to the northwest, Gilbert de Clare chose the former Iron Age hillfort as the site of a new castle in *circa* 1288 (PRN 443m, SAM GM028). This castle defined the northern limit of Glamorgan, but continued Welsh resistance may have resulted in

the castle having only a short existence, possibly abandoned as early as 1295. Other medieval sites in the surrounding landscape suggest a dispersed rural upland population during much of the medieval period.

- 4.5.14 The potential for medieval remains to exist within the proposed development area is considered to be very low.

Post-Medieval (1536 – 1899) & Modern (1900 – present day)

- 4.5.15 All the recorded archaeological sites in the search area surrounding the proposed development site are later post-medieval in date, and this reflects the rapid industrial expansion in the area from the mid-18th century onward.

- 4.5.16 By the mid-18th century the Dowlais area comprised a scatter of cottages within two farm holdings, that of Wern-Llwyn Isaf and Wern-Llwyn Uchaf. The approximate location of the two farmsteads are preserved as street names, Gwernllwyn Road and Wern Isaf, both to the east of the proposed development site.

- 4.5.17 In 1759 the Dowlais ironworks (PRN 1615m) were established to the south, the first to be established in the Merthyr Tydfil area, to make use of the local mineral deposits. It was set up as a partnership, headed by Isaac Wilkinson, an ironmaster from Bersham, Clwyd. Initially there was a furnace to produce pig iron, the ironworks increased to three blast furnaces by the early 1790s, with many of the raw materials mined from the local area. It continued to produce pig iron, which was often then sold on to other ironworks to manufacture wrought iron. This changed in 1801 when wrought iron began to be produced at Dowlais, and investment led to increased production and expansion of the site with the addition of puddling furnaces, rolling mills, a blowing engine and a fourth blast furnace by 1808, and a fifth by 1815. In 1807 John J Guest became the Dowlais ironmaster, and he and his family were to invest heavily in the local area. Investment and expansion of the ironworks continued until, by 1830, Dowlais had become the largest of the South Wales ironworks, and by the 1840s, the largest in the world with 18 furnaces, employing 7,300 people. In 1839 a subsidiary works had also been constructed to the north, known as the Ivor Ironworks (PRN 2482m). Although smaller, this site still had four blast furnaces, three forges, fitting shops, a foundry, puddling furnaces and six mills. By 1869 the Dowlais Works alone were employing 9000 people, and a couple of years later expanded into steel production.

- 4.5.18 The huge employment offered by these large industrial concerns, with further ironworks also established in Merthyr, attracted significant settlement and development to the local area. By the early 19th century settlement in Dowlais appears to have developed largely along the roadside in front of the Works, along what is now High Street. By the 1820s settlement expansion began to expand along a characteristic grid system, which was established between High Street and Union Street, including East Street and the proposed development area. This development was established on Dowlais Iron Company land, driven by investment from the owners of the Dowlais mill, the Guest family, and included major municipal features such as **St John's Church** and the Dowlais stables. The workers were housed in densely packed rows of terraced housing. Between 1832 and 1850 Dowlais as a settlement underwent a further period of major expansion and the resulting planned street layout is still **visible in the town's**

morphology. During the second half of the 19th century the settlement expanded further to the northwest, beyond Dowlais Iron Company land, into an area held by smaller landowners, with settlement there taking on a slightly different character. Expansion of Dowlais settlement was largely complete by 1879.

- 4.5.19 By the end of the 19th century a new works had been established in Cardiff, and although the two operated in tandem, a general decline in iron and steel manufacture led to the works at Dowlais eventually closing in 1930. The economic depression of the late 1920s and 1930s severely affected the Dowlais area, although there was some revival subsequent to the establishment of the O.P Chocolates Company at the former ironworks in 1938. The 1970s saw a period of demolition and clearance works within Dowlais. This led to the loss of the majority of the traditional earlier 19th century workers' housing in the area (including the proposed development site) as well as some of the civic buildings.
- 4.5.20 Historic analysis indicates that the proposed development site lies in an area of early 19th century urban expansion which formed part of urban planning established by Dowlais Iron Company; former housing on the development area was directly related to the expansion and success of the ironworks. The latter comprised terraced rows of housing (NPRN 18385) (Photos 5 & 9), with a corner house at the junction of East Street and Commercial Street (Photo 10) and an Inn midway along East Street (Photo 6). Areas of municipal development also surrounded the site (established by the Dowlais Iron Company and Guest family); notably, with the stables (PRN 1558m) to the north (which included a school above), **St John's Church** (PRN 4310m; LB 17931) to the northwest, and a market to the east, probably built in a similar style to the stables. Further municipal structures were added in the early 20th century, such as the public library (LB 27083) to the west and a police station to the east. Some commercial redevelopment is noted along Upper Union Street at a similar time, and this can be seen on early photographs (Photo 7), otherwise this area remained as terraced housing until clearance began in the 1970s. The proposed development site subsequently remained an area of open land until a car park and Cancer Aid building were established within the last 15 years.

5 Map Regression (Figures 8 – 10)

5.1 *Dowlais Iron Works Estate Maps*

- 5.1.1 Dowlais Iron Company estate maps of 1784 to 1806 chart the early development of the area (Roberts 2003): these maps were however unavailable to view during the current study. The area is described as a loosely dispersed scatter of cottages along the road to the Dowlais furnaces and in the Cae-Harris area to the east. There is no indication of activity within the proposed development area.
- 5.1.2 Maps of 1820 show the development of the grid street system on land owned by the Dowlais Iron Company, to the north of the main ironworks. Union Street, East Street and Church Street were all part of this grid system, and terraced workers housing was laid out along the street frontages during this period within the proposed development area.

5.2 *Merthyr Tydfil Tithe Map of 1850*

- 5.2.1 The tithe map of 1850 shows that this grid layout of streets, running west to east had been laid out across the proposed development site. Although houses are not shown along these streets it is known from preceding plans that they existed. The grid pattern of streets stretched to the west and southwest. To the east, the original ribbon development is visible on the map, although this portion is damaged.
- 5.2.2 To the north of the development site a large open area exists, which has few buildings shown within it. The apportionment splits this area into three land parcels, the southernmost, 2116, is described as a rubbish tip. Immediately to northeast is 2115, listed as the Ivor Iron Works, while to the northeast again is 2119, described as the Dowlais Barracks.
- 5.2.3 Further to the northeast, beyond the settlement of Dowlais, an area of enclosed fields are marked, with the boundary pattern suggesting an earlier post-medieval or medieval enclosure date, with some later enclosure enlargements. The apportionment shows numerous occupiers of these fields.

5.3 *Ordnance Survey 1:528 Plan of 1875 and 1:2,500 Map of 1876 (Figure 8)*

- 5.3.1 The proposed development site is shown in detail on the Ordnance Survey (OS) plan of 1875, Figure 8 illustrates the 1:2,500 OS map of the following year but shows the same detail. Terraced dwellings line the street frontages of East Street, Commercial Street, and Upper Union Street. The housing appears relatively standard throughout the proposed development area, with all dwellings of a comparable size, with rectangular garden plots to the rear. Those along Commercial Street lack the rear garden plots, but do have additional attached buildings to the rear. The one uncharacteristic building is the mid-terrace Railway Inn (Photo 6) fronting East Street.
- 5.3.2 Terraced housing predominates in the surrounding streets, interspersed with Inns. To the northeast lies the Dowlais stables, laid out around a rectangular quadrangle. Mirroring this building in front is the Market House, presumably a commercial centre as indicated by the street names (Commercial Street along its west, and Market Street to the east). To the northwest lies St Johns Church, built in line with Church Street. The Dowlais Iron Company School can be seen beyond Market House to the east, and a number of chapels are also marked amongst the housing.
- 5.3.3 Both Dowlais Iron Works to the south, and Dowlais Ivor Iron Works to the northeast, are shown in some detail. A railway has also been established alongside both Works. The planned nature, and influence and investment of the Dowlais Iron Company, is readily visible in the mapping.

5.4 *Ordnance Survey 1:2,500 Map of 1900 (Figure 9)*

- 5.4.1 The second edition Ordnance Survey map shows no change within the proposed development area and the immediate vicinity.
- 5.4.2 Change is apparent at Dowlais Iron Works to the south, with the large Goat Mill having been constructed. Some enlargement of buildings has also taken place on the Ivor Iron Works to the north, and further terraced housing has been constructed to the northwest and to the northeast along the eastern edge of the Iron Works.

5.5 *Ordnance Survey 1:2,500 Map of 1920 (Figure 10)*

- 5.5.1 This edition of the map shows that some change had taken place on the proposed development site, with a small number of buildings and their plots of land on the northern edge of the site having been amalgamated. The map shows a much larger building standing in this area of the site, which would suggest commercial redevelopment along Upper Union Street (Photo 7). One of the terraced houses is also now labelled as a Post Office. A smithy is shown on East Street, but this appears to be on the south side of the road, outside the proposed development area.
- 5.5.2 The public library has been constructed on the corner of Church Street and Upper Union Street, otherwise no significant changes appear to have taken place in the surrounding landscape.

5.6 *Ordnance Survey 1:1,250 Map of 1957*

- 5.6.1 This map shows little change within the proposed development area, although the post office and smithy are no longer labelled. Adjoining properties to the west, fronting Church Street, appear to have been partially removed, with one labelled as ruins.
- 5.6.2 Nearby the Stables are now shown as partial ruins, and the Market House to the east has become a factory. A number of small buildings in the surrounding area are labelled as ruins.
- 5.6.3 There has been significant change within the landscape as by this time the Dowlais Iron Works to the south of the site have been abandoned. The map shows a number of factory buildings along the northern edge of the works still stand, but all of the furnaces, coke ovens and other buildings within the core of the works are no longer marked. Many of the rail lines have also disappeared, with only those to the south and east still evident. The large spoil tips are also illustrated on the map along with what must be some watercourses. A football ground is now shown within the area of the works.
- 5.6.4 The Ivor Iron Works to the north is still marked on the map, although there has been a reconfiguration of buildings within the site, with a number of larger buildings replacing a series of smaller ones shown on the 1920s mapping.

5.7 *Ordnance Survey 1:2,500 Map of 1963*

- 5.7.1 No alterations from the previous map are noted.

5.8 *Ordnance Survey 1:1,250 Map of 1972-4*

- 5.8.1 On this map an electrical substation is shown in the cleared area immediately to the west of the site. Within the site boundary little appears to have altered, with a continuous street frontage along East Street, Commercial Street and Upper Union Street.
- 5.8.2 The former market to the east has been cleared, with the land to the east of Commercial Street now standing empty. Elsewhere there appears to have been little change from the previous map.

5.9 *Ordnance Survey 1:10,000 Map of 1983*

- 5.9.1 The map shows that by this time all of the housing extant within the area of the proposed development had been demolished, with the area left clear of any structures. Redevelopment of the streets to the south and southwest had also occurred by this time, with the terraced housing being replaced by semi-detached properties. Housing had also been cleared around the Stables to the northeast, and the area of the former Market House landscaped.

6 Aerial Photographs and Lidar (Photos 1-4)

6.1 *Aerial Photographs*

- 6.1.1 Aerial photographic evidence of the area held by the Aerial Photographic Unit in Cardiff has been examined, comprising photographs from 1945 to the present day.
- 6.1.2 Early aerial photography of the site taken by the RAF from the 1940s and 1950s show the site as depicted on the historic mapping. Closely packed terrace housing lies along the street frontages throughout the proposed development area, which itself lies in a well-defined area of terraced housing throughout Dowlais. The larger civic buildings are seen interspersed amongst the terraced housing, including the stables to the northeast, market to the east, and church to the northwest of the site. The ironworks may have closed down by this time, but the extensive areas of former industrial activity are very much in evidence to the south around the Dowlais Works, and to the north around the Ivor works.
- 6.1.3 By the later 1960s the Meridian Airmaps show little change within the proposed development area, although buildings have been cleared immediately to the west along Church Street. Further afield redevelopment work is also in evidence, with new industrial buildings established in the former Ivor Ironworks, the removal of much of the former railway and tram network, and housing redevelopment of the former workers housing in southwest Dowlais.
- 6.1.4 Aerial views of the late 1970s (Photos 3 & 4) capture the period when Dowlais was undergoing significant change, with many of the terraces of 19th century workers housing and other associated buildings being demolished and removed, and large areas redeveloped with modern housing. Within the proposed development area the early-19th century terraced housing along East Street and Commercial Street appear to have been the first to be demolished, as new residences were built along the southern side of East Street. The commercial premises along Upper Union Street appear to have survived a little longer, but had also been cleared by the time the area was recorded on the next aerial photographs of the mid-1980s.

- 6.1.5 The proposed development area became roughly landscaped open scrub until at some point between 2004 and 2006 the adjacent library car park was established. Although immediately outside the proposed development site associated ground disturbance appears to have extended into this area, particularly along Upper Union Street. Between 2006 and 2008 the Cancer Aid building was constructed, with a suggestion of extensive landscaping throughout the proposed development area (which had gradually returned to open lawn and scrub by 2010).

6.2 Lidar

- 6.2.1 Lidar DTM images at 1m resolution are available for the site. Given the size and surrounding development, no clear evidence of archaeological remains are discernible. The images do suggest significant ground disturbance around the site of the adjacent Cancer Aid building and car park.

7 Site Visit (Photos 11 - 26)

- 7.1 A site visit was undertaken on the 5th May 2017. Conditions were bright, dry with good visibility. The site comprised an open area of grass, with a few small shrubs in the southwest corner.
- 7.2 The ground slopes from the north-northwest to south-southeast, falling to meet the A4060 and Merthyr Common where the ground levels out. Beyond this the ground begins to rise up again. The views to the north were obscured by the higher ground but also by the buildings that run along the site boundary. The views to the south and southwest were partially obscured by the 20th century housing along the site boundary in these areas. These obscured views down the slopes beyond the site but there were views of the Merthyr Common ridge to the south and of Mynydd Aberdâr to the southwest. The view at the eastern end of the site was semi open due to the road alignments. Partial views are afforded to the east and south-east from this section of the site. The view to the west of the site is completely obscured by the presence of a large building just beyond the site boundary.
- 7.3 The unevenness of the slope suggests that the ground within the proposed development area has been modified. This could be associated with the construction of the car park on the western edge and/or the building on the north side of the site. There is the possibility though, that it is linked to the demolition of the housing that was extant on the site until the late 1970s.
- 7.4 No features of archaeological interest were identified within the bounds of the proposed development area.
- 7.5 Five of the designated archaeological sites identified within 1km from the HER were visible from the site: these comprise LBs 21083, 17931, 11478, 11490 and 11491.
- 7.6 Site visits were also made to the nearest designated archaeological sites of Sarn Howell Pond and Watercourses, Morlais Castle, Morlais Hill Ring Cairn and Morlais Castle Tramroad, to examine potential visual effects of the proposed development. These are discussed in Section 8 below.

8 Impact Assessment

8.1 *Assessment of Archaeological Potential and Importance*

- 8.1.1 One site is recorded within the proposed development boundary on the NMR, namely NPRN 18385, which refers to workers' housing. Although this record refers specifically to housing along Commercial Street, housing on the site consisted of a continual terraced row of housing fronting East Street, Commercial Street and Upper Union Street. The housing was domestic, built in the early 19th century by the Dowlais Iron Company to house its workers in the nearby Iron Works. One property on East Street had become an inn by the late 19th century, and during the early 20th century many of the properties along Upper Union Street were redeveloped as commercial properties. All these buildings were demolished in the late 1970s. There are very few standing remains of the original 19th century workers' housing of Dowlais Iron Company, but such buildings form an important part of the story of the development of Merthyr Tydfil during a period when it became the largest settlement in Wales. Evidence for these buildings is therefore of some archaeological value. Given the extent of workers housing built across this area any such remains would be considered to be of Local Interest.
- 8.1.2 There is considered to be a very low potential for any earlier archaeological remains to exist within the proposed development area.

8.2 *Previous Impacts*

- 8.2.1 The site appears to have been relatively undeveloped until the early 19th century. At that time however urban expansion was extensive (and intensive, across the site), which is likely to have impacted upon any previous archaeological remains.
- 8.2.2 There are indications of redevelopment work along Upper Union Street in the early to mid-20th century, which is likely to have impacted upon the original early-19th century workers housing that lay in this area.
- 8.2.3 In the late 1970s the site was cleared of all structures. Photographs of this period indicate that clearance was extensive, and all standing remains were removed. Recent satellite and Lidar images suggest potential landscaping and ground disturbance works are also likely following the development of the Cancer Aid centre and adjacent car park within the last 15 years.

8.3 *Potential Impacts of the Proposed Development*

- 8.3.1 The proposed development comprises plans for approximately ten dwellings, built as a series of semi-detached properties, largely fronting East Street, with some fronting Upper Union Street. It is understood that the buildings along East Street will be two-storey dwellings, with single-storey dwellings along Upper Union Street. Any of the following activities associated with the proposed development could therefore expose, damage or destroy potential archaeological remains:
- Enabling works, such as the installation of the **contractor's compound, construction** of access roads, parking areas, storage areas, borrow pits and associated services;
 - Landscaping and terracing works;

- Surface stripping;
- Construction of infrastructure;
- Foundation excavations;
- Service installation

8.3.2 The proposed development also has the potential to generate indirect (visual) effects on archaeological sites, such as altering the visual setting or tranquillity of the sites and landscapes.

Historic Landscapes

8.3.3 No registered Historic Park & Garden will be affected by the proposed development.

8.3.4 The site lies within the registered Historic Landscape of Merthyr Tydfil, which has been designated for its outstanding value (Cadw, HLW (MGL) 2). This value is based on the survival of buildings both industrial and domestic, transport routes and water courses associated with the iron works that grew up in Merthyr Tydfil during the 19th century. Within this landscape, several Historic Character Areas have been designated and the proposed development site is located within Dowlais Historic Character Area (HLCA 007). This area has been defined as an Industrial Settlement, with the pattern of settlement resulting largely from the development of the Dowlais Iron Works. The street layout, an important character element of this area of Dowlais, will be retained. Historically this area has comprised dense urban settlement since the early 19th century, having only been cleared of such in the late 1970s. As an open area it is uncharacteristic of the historic urban landscape, and currently contributes little to the visibility and understanding of the history of this area. The proposed development lies within an existing residential area, which is now largely modern in date, and could be seen as urban infill in keeping with the surrounding urban development. It is unlikely to significantly impact upon the visibility and understanding of the layout and development of the Dowlais area. The development is therefore considered to have a minor impact on the Dowlais Historic Character Area.

8.3.5 The proposed development also lies within a Conservation Area (WAL/MT/Dowlais), which is of **'Special Interest'**. The **Conservation Area** is drawn around the Listed Buildings (LBs 27083, 17931, 11478, 11489 and 11477) to the west and north of the site and includes terraced housing on Market Street to the east. It is noted that historically this area would have formed a busy and crowded settlement centre, but the current open spaces now form part of the character of this area, contrasting with the larger traditional civic buildings. Therefore, whilst the proposed development somewhat restores the traditional urban nature of this site, it has the potential to impact on the visibility and current setting of the surrounding traditional civic buildings by removing the open ground. The development is therefore considered to have a potentially moderate impact on the Dowlais Conservation Area.

Scheduled Ancient Monuments

8.3.6 No Scheduled Ancient Monument (SAM) will be directly affected by the proposed development. No SAMs be indirectly (visually) affected by the proposed development, as outlined below.

- 8.3.7 There are no SAMs within the 1km search radius but there are 29 recorded within a 5km search area around the proposed development. Any sites of potential relevance were visited to establish the impact of the development on their setting.
- 8.3.8 The nearest is the Sarn Howell pond and watercourses (GM494), located to the south. This site is historically and physically linked to the former Dowlais Iron Works, supplying water to the Works, but has less of a direct link to the associated settlement of Dowlais. There is no visual connection between the proposed development site and the Sarn Howell pond, they are separated by the ridge of Merthyr Common, which completely blocks any visual link between them.
- 8.3.9 There are three further SAMs close to the site, all of which are located on Morlais Hill to the north. The Morlais section of the Merthyr Tramroad (GM594) in part served the Ironworks at Dowlais, but has little direct link to the workers' housing in this area of Dowlais. There is also no visual link between the Tramroad (GM594) and the proposed development site. There is no direct link to the other two monuments, Morlais Castle (GM028) and Morlais Hill Ring Cairn (GM563). Both Morlais Castle (GM028) and Morlais Hill Ring Cairn (GM563) have distant views across the Dowlais area, incorporating the proposed development site. However, the site is not distinct, and urban development within it will have no visual impact on these SAMs.

Listed Buildings

- 8.3.10 No Listed Building will be directly affected by the proposed development. Of the 13 listed buildings within the search radius only five will potentially be indirectly affected by the proposed development. The Listed Buildings that will be affected are LBs 27083, 17931, 11478, 11490 and 11491.
- 8.3.11 Of these two only have partial views over the site (LBs 11490 and 11491). The Former Guest Memorial Library (LB 11490) has partial views towards the proposed development site, and a potentially important visual **link with the prominent St John's Church** (LB 17931) adjacent to the site. However, further urban development will not affect these views, or impact on the setting of this listed building, therefore this Listed Building will not be affected by the proposed development. The Dowlais Works Blast Engine House (LB 11491) is currently partially visible from parts of the development site, including views from in front of St Johns Church (LB 17931) at the northern end of the site, and towards the southeast corner of the site. However, these are not historic viewpoints, and views between St John Church and the Engine House would have been blocked by contemporary urban development. Views from the northern edge of the site are partial, and not considered to be significant viewpoints. The Listed Building is better viewed from East Street, where it is visible through a gap in the modern housing, but these views will not be affected. There are no accessible views from the Engine House towards the proposed development site that would be affected. Therefore the proposed development is considered to have a negligible impact on LB 11491.
- 8.3.12 The remaining three Listed Buildings all stand in relatively close proximity to the proposed development area, comprising Dowlais Works Stables (LB 11478) to the northeast, St Johns Church (LB 17931) to the northwest and Dowlais Public Library (LB 27083) to the west. The current open ground of the proposed development affords

greater views of these buildings from both within the site, and along East Street and Commercial Street. These open areas have also been identified within the Conservation Area description as character elements, giving these impressive civic structures greater prominence. The development and infilling of this area will therefore impact on the settings of these buildings. However, such open spaces were not factors in the original construction of these buildings, as at the time they were erected the site would have comprised dense urban infill, with two-storey high terraced buildings. Current viewpoints from within the proposed development area and along East Street are therefore not original design features. The current proposals for two-storey dwellings along East Street and single-storey dwellings along Upper Union Street are of a scale that does not detract from the prominence of the Listed Buildings. The Dowlais Works Stables (LB 11478) retains an undeveloped area in front and will remain a dominant feature. St Johns Church (LB 17931) stands on an elevated location and will retain its visual prominence, distant views of this building will also be largely unaffected. The original close views of the church, which would have been from Upper Union Street and up Church Street, will also remain unaffected. The car park to the west of the proposed development also maintains an element of openness in front of the Dowlais Public Library (LB 27083). The materials and design used in the proposed development may be a factor on the impact it will have on the settings of these Listed Buildings, but the outline proposals as currently understood are considered to have a Minor/Moderate impact on these Listed Buildings.

Non-designated Archaeological Sites

- 8.3.13 One recorded site of archaeological interest has been recorded within the proposed development area, namely the terraced rows of 19th century workers housing that stood along Commercial Street (NPRN 18385). Such housing extended along all street frontages within the proposed development area, with those along Upper Union Street modified to commercial properties during the later 19th century. Above ground remains have been removed. Any surviving below-ground remains that survive in this area would be directly impacted upon by the proposed development. However, aerial photographic and Lidar evidence, along with the current appearance of the site, would suggest significant ground disturbance works across the site area which are likely to have impacted upon potential below-ground remains. The state of preservation of below-ground remains is unknown, but it would appear that such remains are likely to be poorly preserved. However, the development of this site is still considered to have a moderate impact upon these remains should they exist.
- 8.3.14 There is considered to be a very low potential for any earlier archaeological remains to be present within the proposed development area.

9 Conclusions

9.1 *Impacts on Designated Assets*

- 9.1.1 The site lies within the registered Historic Landscape of Merthyr Tydfil (HLW (MGL) 2), and more specifically within the Historic Character Area of Dowlais (HLCA 007). The current open nature of the site is not a typical historic character element of this landscape, which is described as an industrial settlement. The proposed development could be seen as urban infill in keeping with the surrounding urban development, and on a site of historic urban development, therefore it is considered to have a Minor impact on this Historic Character Area.
- 9.1.2 The site lies within the Dowlais Conservation Area (WAL/MT/Dowlais). It is noted that historically this area would have formed a busy and crowded settlement centre, but current open spaces now form part of the character of this area, contrasting with the larger traditional civic buildings. Whilst the proposed development can be seen to restore some of the traditional urban nature of this site, it also removes some of this open space. Therefore the proposed development is considered to have a Moderate impact on this Conservation Area.
- 9.1.3 Three Listed Buildings stand in relatively close proximity to the proposed development site, namely Dowlais Works Stables (LB 11478) to the northeast, St Johns Church (LB 17931) to the northwest and Dowlais Public Library (LB 27083) to the west. The proposed development will impact upon the current open aspect in front of these buildings, and impact upon some current views. However, it is noted the open aspect and viewpoints are not traditional elements, and the buildings were designed and erected when this area was infilled with urban development. The current outline proposals of one to two-storey dwellings, dependent on design and materials used, also do not significantly detract from the prominence of these Listed Buildings. The proposed development is therefore considered to have a Minor/Moderate impact on these Listed Buildings.
- 9.1.4 The proposed development will partially impact upon views of the Grade II* Listed Dowlais Works Blast Engine House (LB 11491) to the southeast. This impact however is considered to be Negligible.
- 9.1.5 No further Listed Buildings, Scheduled Ancient Monuments or Historic Parks & Gardens will be impacted upon by the proposed development.

9.2 *Impacts on Non-designated Assets*

- 9.2.1 Terraced rows of 19th century workers housing (NPRN 18385) have been identified along all street frontages within the proposed development area, considered to be of Local interest. No above ground remains exist, the state of preservation of below-ground remains is unknown although potentially significant previous ground disturbance is noted in the area. The proposed development is considered to have a Moderate impact on any remains, should they exist.
- 9.2.2 The potential for earlier archaeological remains to be present is considered to be very low.

Table 1: Sites of archaeological interest affected by the proposed development

Reference	Site Name	Site Type	Value	Magnitude of Impact
HLCA 007 (Part of HLW (MGL) 2)	Dowlais	Historic Landscape Character Area	High	Minor
WAL/MT/Dowlais	Dowlais	Conservation Area	High	Moderate
LB 11478	Dowlais Works Stables	Grade II Listed Building	Medium	Minor/Moderate
LB 17931	St Johns Church	Grade II Listed Building	Medium	Minor/Moderate
LB 27083	Dowlais Public Library	Grade II Listed Building	Medium	Minor/Moderate
LB 11491	Dowlais Works Blast Engine House	Grade II* Listed Building	High	Negligible
NPRN 18385	East Street/ Commercial Street/ Upper Union Street	Workers Housing	Low	Moderate

9.3 Mitigation

- 9.3.1 The impact of the proposed development on below-ground remains of 19th century urban settlement in the area, although of Local (Low) interest/value, may nevertheless require some form of archaeological mitigation to ensure their preservation by record during proposed development works. Therefore an archaeological watching brief may be considered appropriate mitigation to investigate and record any such remains revealed during groundworks.

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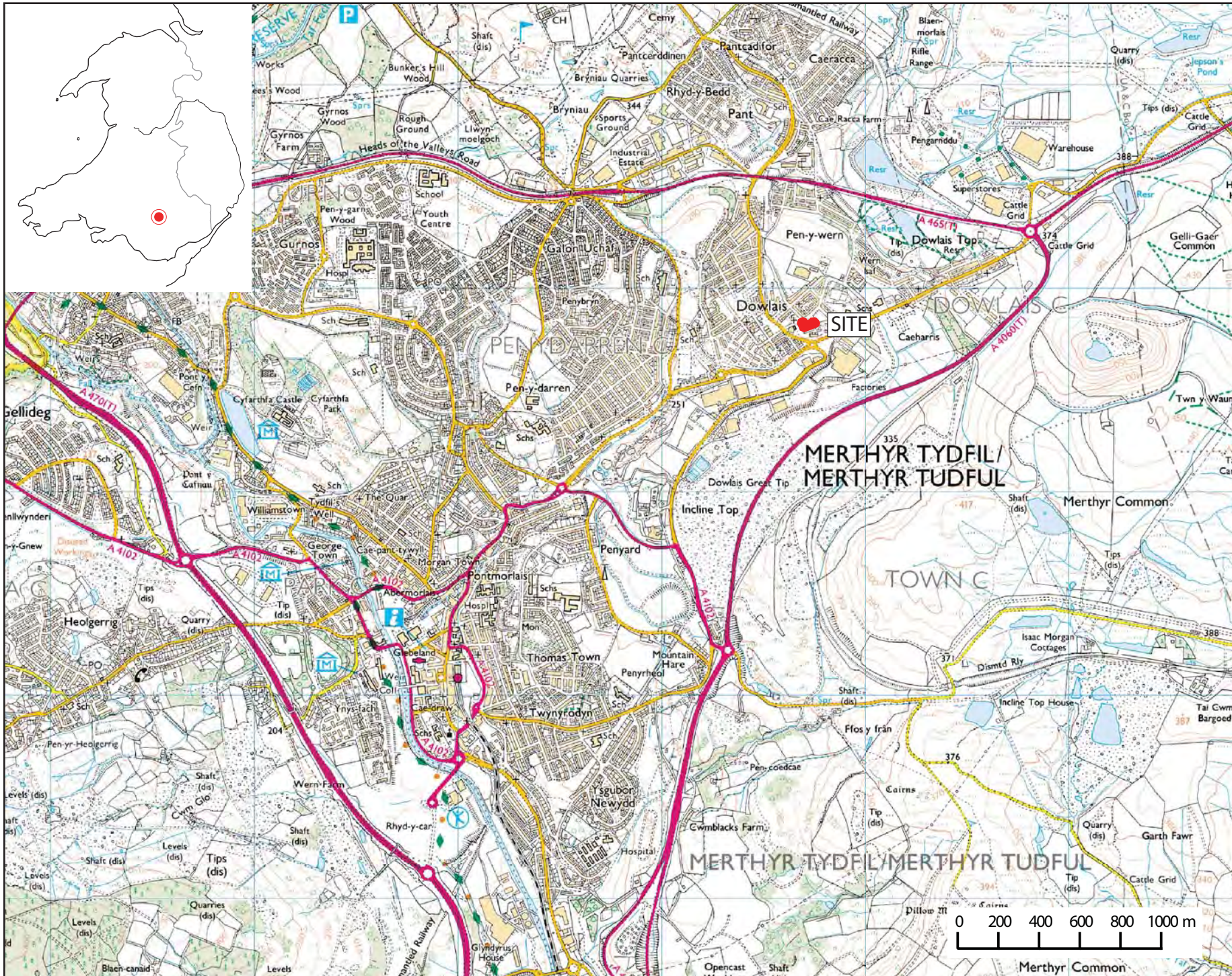


Figure 1: Location map, 1:25,000 @ A4

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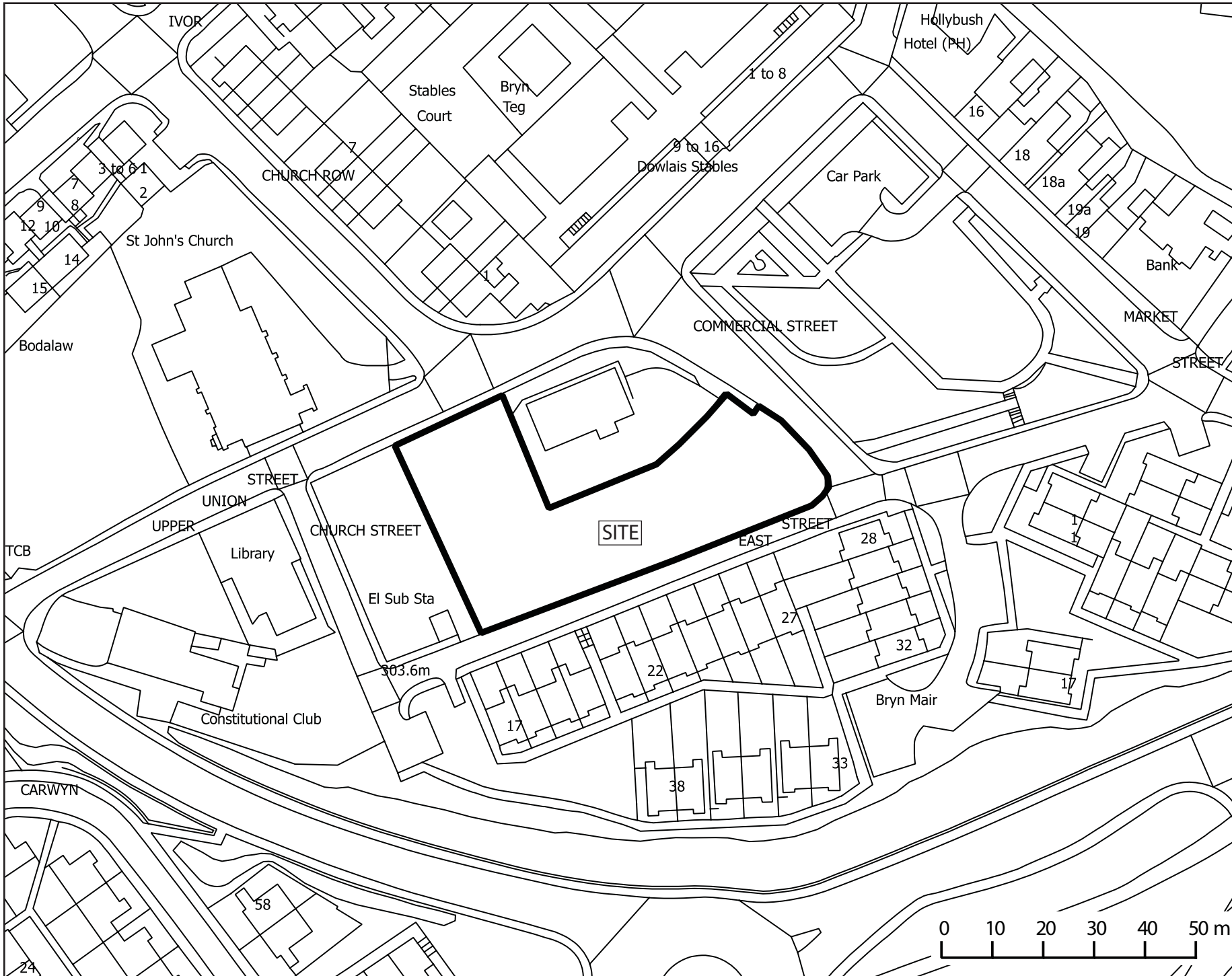
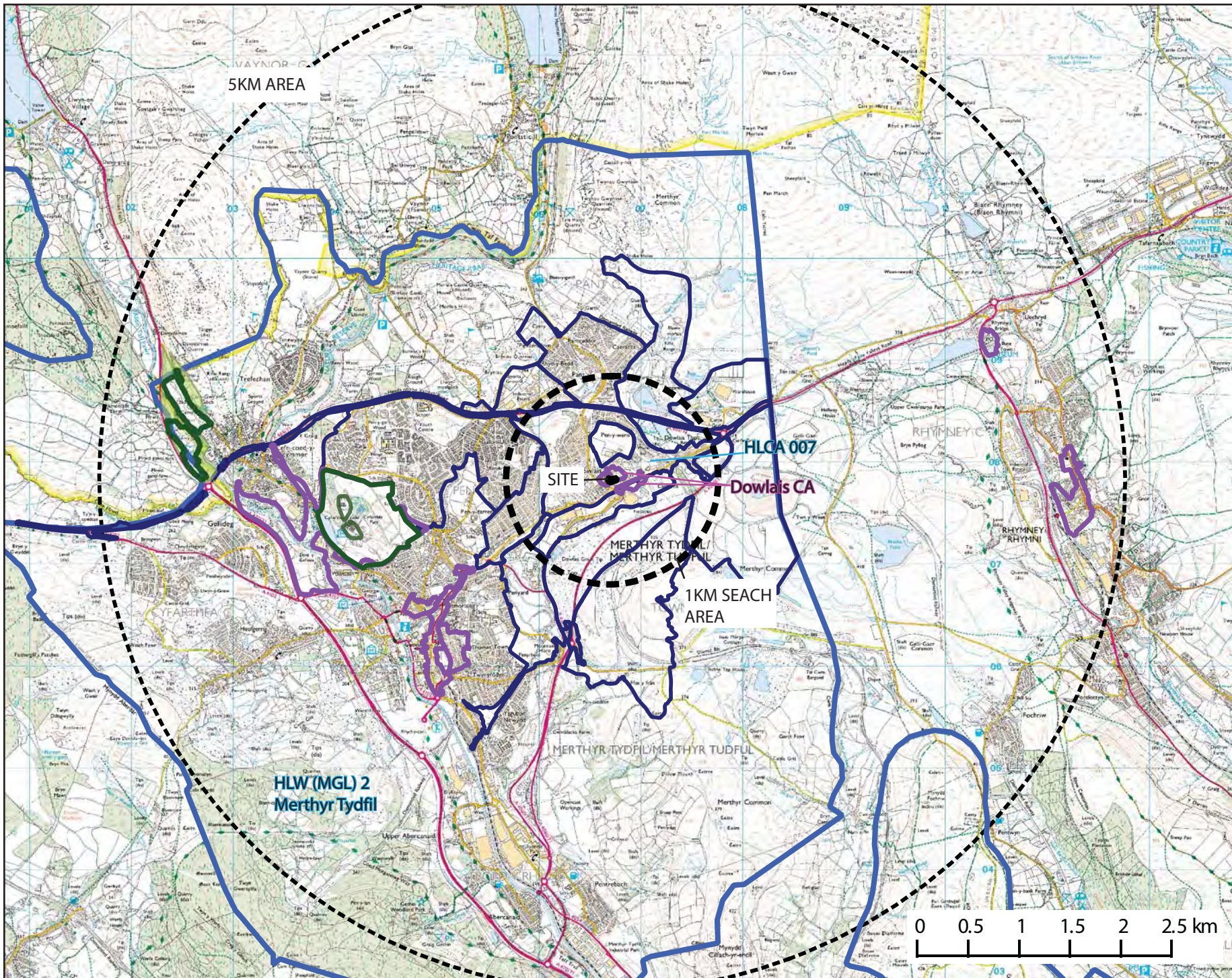


Figure 2: Site layout plan 1:1000 @ A4

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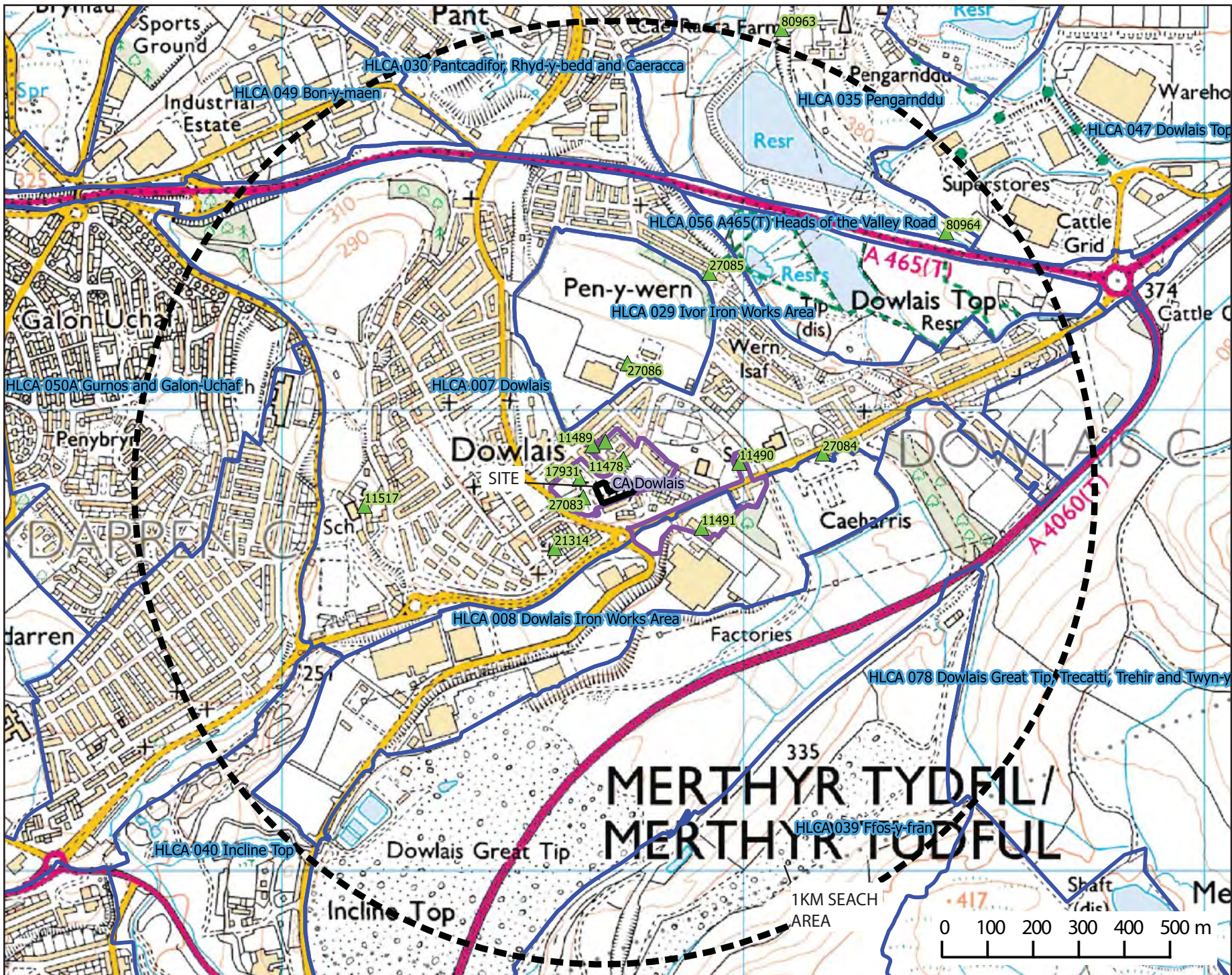
-  Registered Historic Landscape
-  Historic Landscape Character Area
-  Conservation Area
-  Registered Historic Parks & Gardens

Figure 3: Archaeological and historic landscapes within 5km around the site. All sites mentioned in the text are labelled by their relevant references.

1:50,000 @ A4

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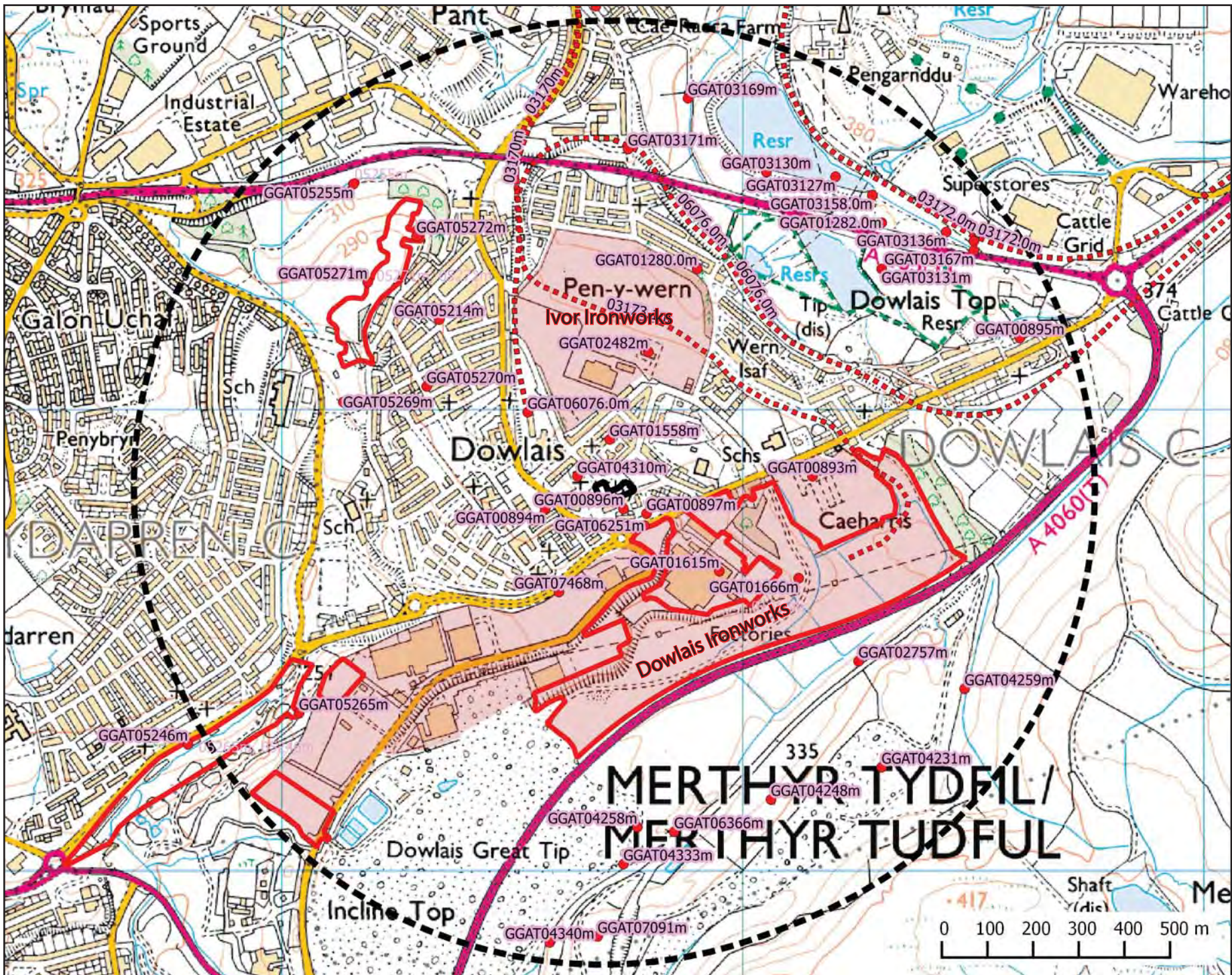
Historic Landscape Character Area
 Conservation Area
▲ Listed Building

Figure 5: Designated archaeological and historic sites and landscapes within a 1km search area around the site. All sites mentioned in the text are labelled by their relevant references.

1:11,000 @ A4

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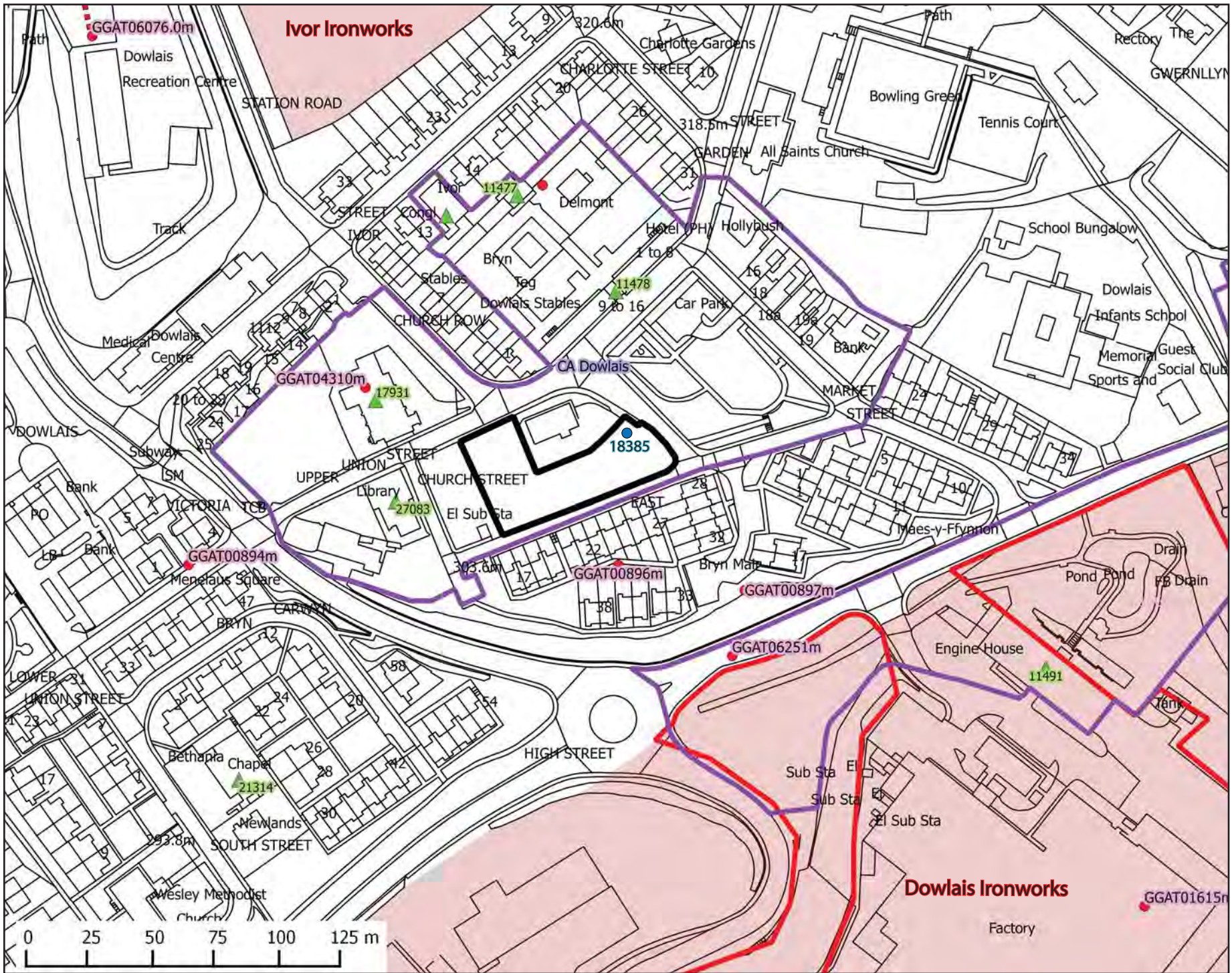
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 Revealing the past, informing the future



- Site recorded on the HER
- Linear features
- Extent of Ironworks

Figure 6: Non-designated archaeological sites recorded on the regional HER within a 1km search area, labelled by PRN. 1:11,000 @ A4

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- Conservation Area
- ▲ Listed Building
- Site recorded on the HER
- Extent of Ironworks
- Site recorded on the NMR

Figure 7: All recorded archaeological sites within close proximity to the proposed development area, labelled by references given in the main text 1:2000 @ A4

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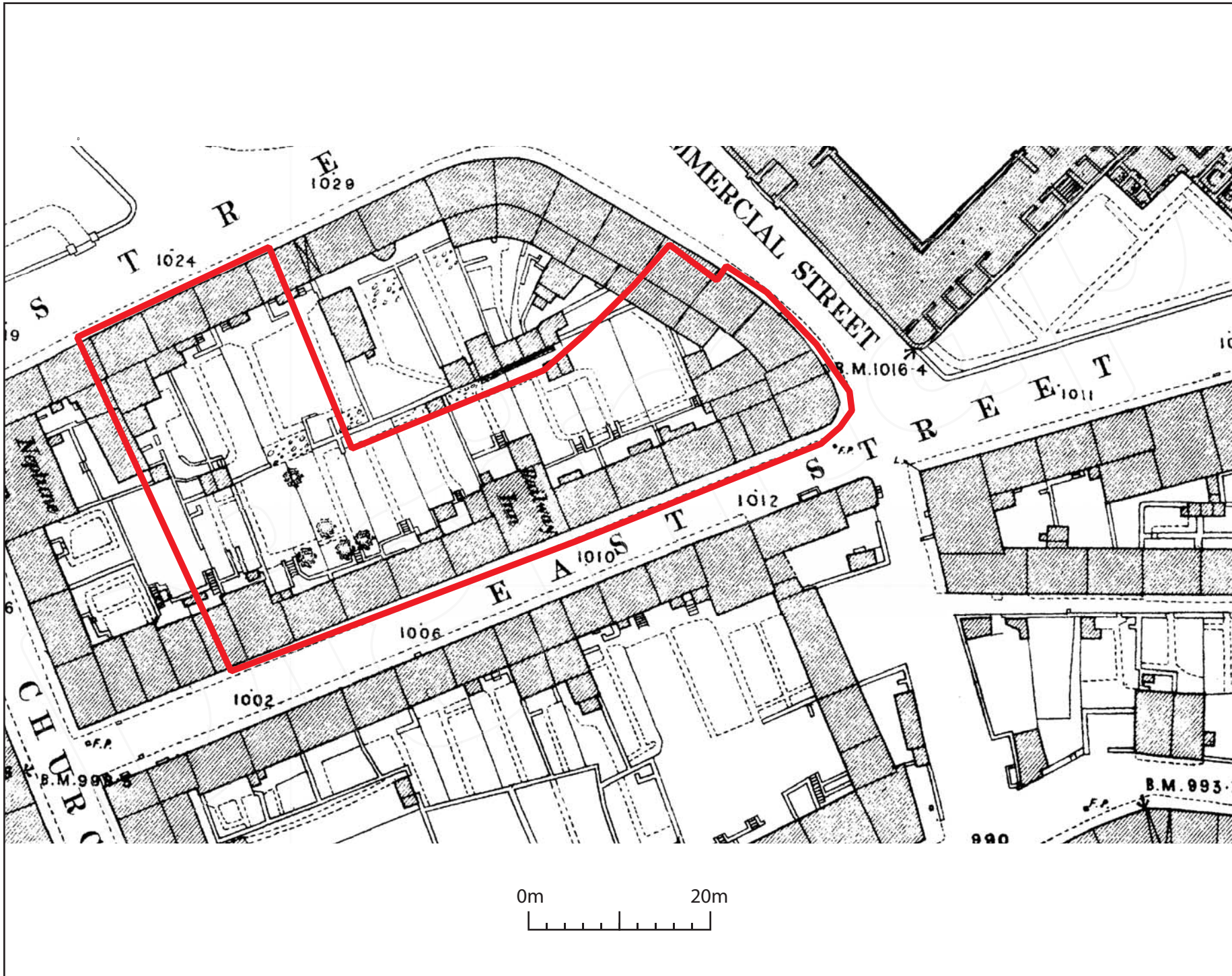


Figure 8: Extract from the Ordnance Survey 1:2500 map of 1876. Approximate location of proposed development area highlighted in red.

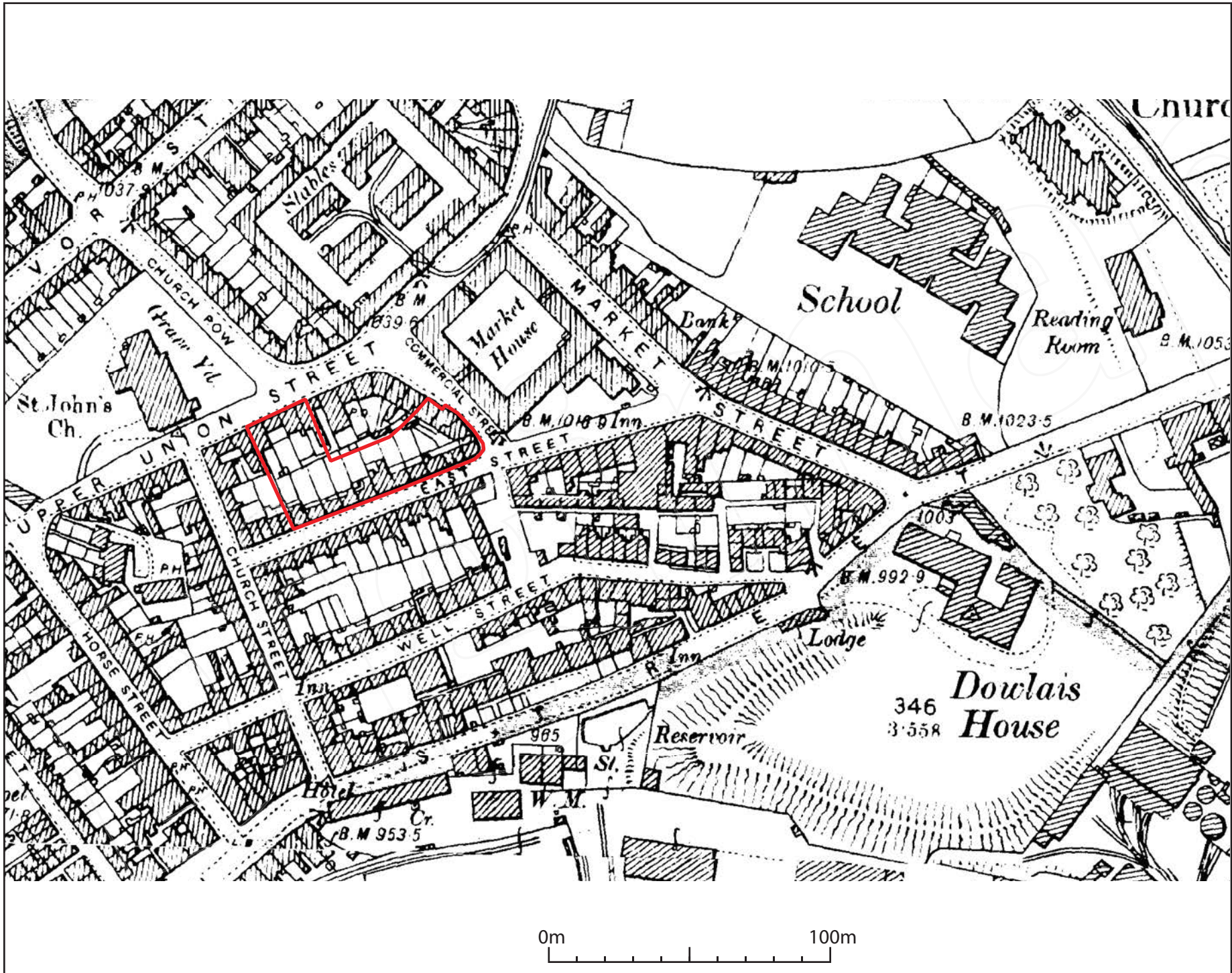


Figure 9: Extract from the Ordnance Survey 1:2500 map of 1900. Approximate location of proposed development area highlighted in red.

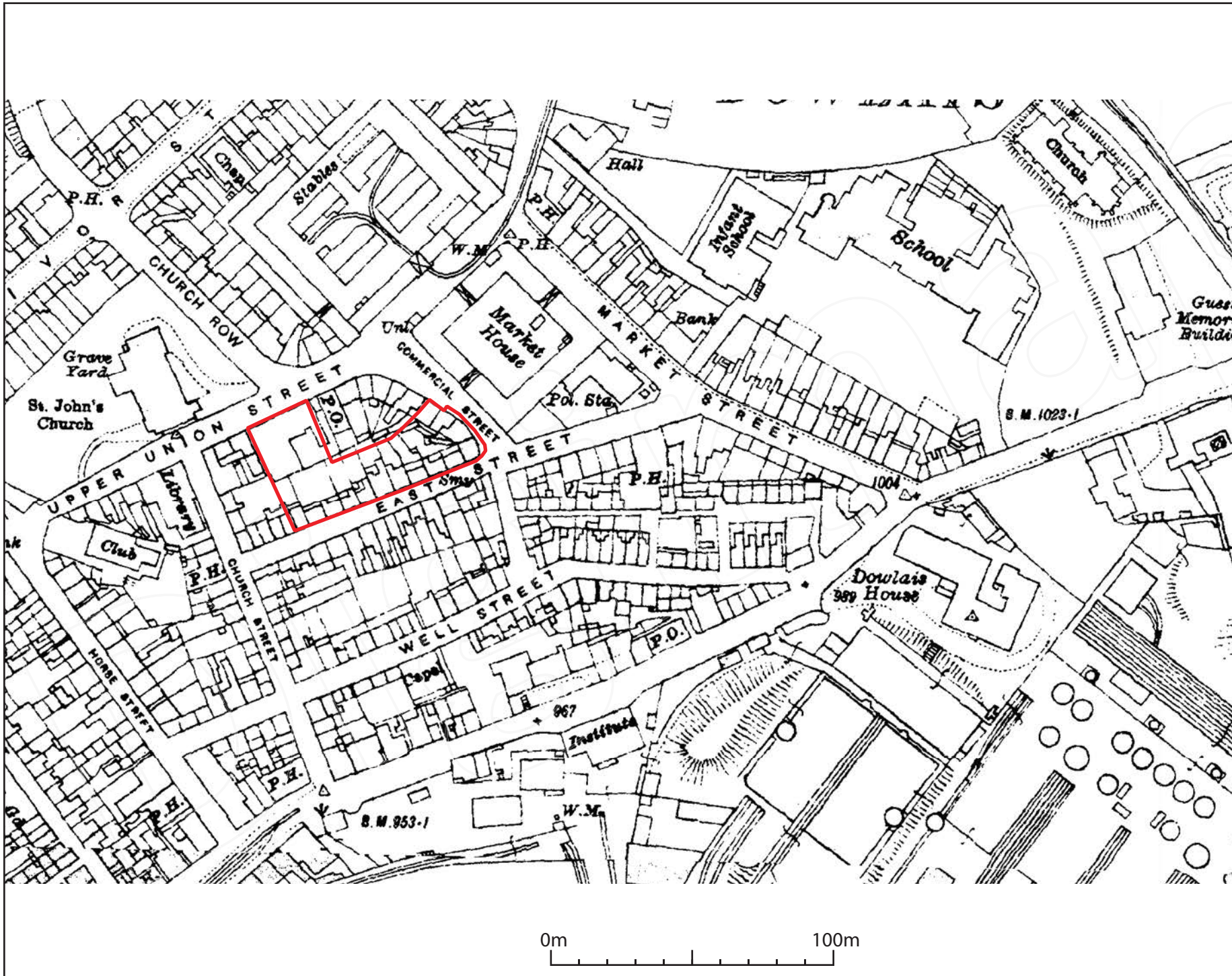


Figure 10: Extract from the Ordnance Survey 1:2500 map of 1920. Approximate location of proposed development area highlighted in red.



Photo 1: Elevated view of Dowlais taken from a stack at Dowlais Iron Works, undated. Images available on www.alangeorge.co.uk.



Photo 2: Oblique aerial photograph of the proposed development area, undated. Images available on www.alangeorge.co.uk.



Photo 3: Oblique aerial image showing redevelopment works in Dowlais in the late 1970s. Image available on www.alangeorge.co.uk.



Photo 4: Oblique aerial image of redevelopment of the proposed development area in the late 1970s. Image available on www.alangeorge.co.uk.



Photo 5: Early 20th century photograph of East Street. This shows the eastern end of the street, beyond the proposed development area, but typical early-19th century workers housing is visible on the right. Image available on www.alangeorge.co.uk.



Photo 6: Early 20th century photograph of the Railway Inn, East Street, within the proposed development area. Image available on www.alangeorge.co.uk.



Photo 7: Early 20th century photographs of retail properties along Upper Union Street, within the proposed development area. Image available on www.alangeorge.co.uk.

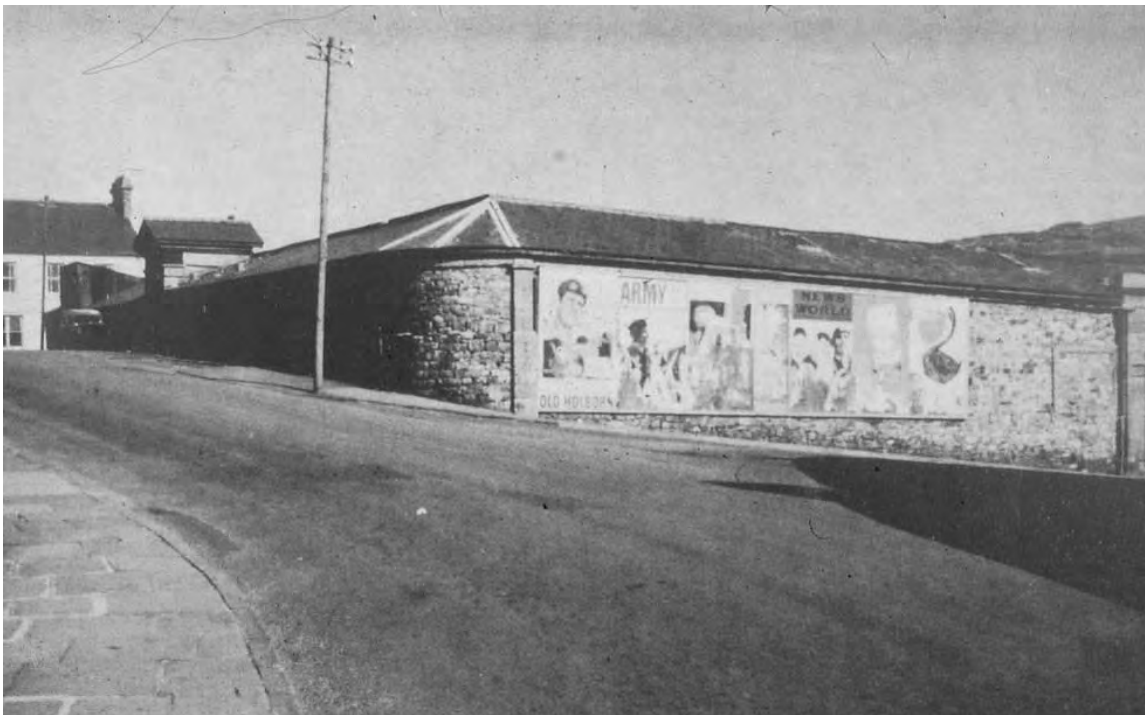


Photo 8: Photograph along Upper Union Street of the former Market House to the east of the proposed development area. Taken in the 1960s prior to demolition and redevelopment. Image available on www.alangeorge.co.uk.



Photo 9: View west, from the corner of East Street and Market. The former site of the Market House is visible in the foreground, with the Dowlais Stables to the right, and the terraced housing fronting Commercial Street (within the proposed development area) in the centre. Photo taken in the 1970s prior to demolition works within the proposed development area. Image available on www.alangeorge.co.uk.



Photo 10. View taken from the corner of East Street and Commercial Street, looking north towards the Dowlais Stables. The property in the foreground lies within the proposed development area. Photo taken in the 1970s, prior to demolition. Image available on www.alangeorge.co.uk.



Photo 11: View west from the corner of East Street and Commercial Street, looking across the proposed development site. The Cancer Aid building visible right of centre.



Photo 12: View west-northwest across the proposed development area. Cancer Aid building and St John's Church (PRN 4310m, LB 17931) visible in the centre. The Library (LB 27083) lies behind the trees to the left.



Photo 13: View east-northeast along the East Street frontage.



Photo 14: View northwest from the western edge of the site, with the Listed Buildings of Dowlais Public Library (LB 27083) on the left, and St John's Church (PRN 4310m, LB 17931) on the right.



Photo 15: View northeast across the car park immediately adjacent to the proposed development area. Also showing ground level view from Listed Building of Dowlais Public Library (LB 27083).



Photo 16: View north from the northern edge of site. Listed Building St Johns Church (PRN 4310m, LB 17931) to the left, modern housing to the right.



Photo 17: View southeast across the proposed development area from Upper Union Street, in front of St John's Church (PRN 4310m, LB 17931). Dowlais Works Blast Engine House (LB 11491) visible in the background.



Photo 18: View northeast from Upper Union Street, adjacent to site. Listed Building Dowlais Stables visible (PRN 1558m, LB 11478).



Photo 19: View south across the site from in front of Listed Building Dowlais Stables (LB 11478).



Photo 20: View southeast from the southeast corner of the site, looking towards Listed Building Dowlais Works Blast Engine House (LB 11491), with modern housing in the foreground.



Photo 21: View southeast along the western edge of the proposed development area.



Photo 22: View southwest from the south-western edge of the site. The roof of Listed Building Bethania Independent Chapel (LB 21314) visible above the surrounding modern housing.



Photo 23: View west towards the site from in front of Listed Building Former Guest Memorial Library (LB 11490). The roof of St John's Church (LB 17931) visible in the centre.



Photo 24: View northwest from in front of Listed Building Dowlais Works Blast Engine House (LB 11491) towards the site (not visible at ground level).



Photo 25: View north looking towards the site from Sarn Howell Pond SAM GM494. Site not visible.



Photo 26: View south looking towards Dowlais from Morlais Hill SAM GM028. Site not visible.

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