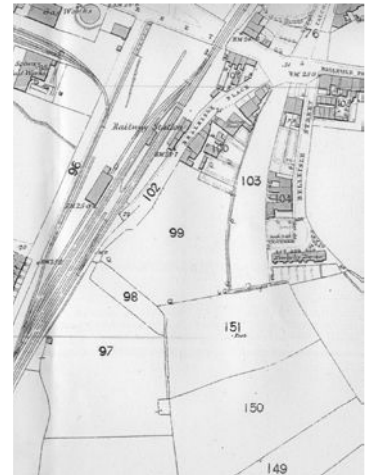


LAND SOUTH OF WORKINGTON STATION, FALCON STREET, WORKINGTON, CUMBRIA

Archaeological Desk-Based Assessment



Client: Cumbria County
Council

NGR: NX 9945 2870 (centre)

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June 2013



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Non-Technical Summary

As part of pre-planning consultation for the proposed construction a transport hub on land south of Workington Station, Falcon Street, Workington, Cumbria Greenlane Archaeology was commissioned to carry out a desk-based assessment of the site. This is intended to identify whether there are any known archaeological remains within the site, and what the potential is for as yet unknown archaeological remains to be present. The project was carried out between April and June 2013, and included a site visit.

The site is situated to the west of the centre of Workington on what was an area of marginal land called the Marsh, to the south of the quays developed along the mouth of the River Derwent, and east of the church of St Michael, which has extensive remains of early medieval date. The site may have housed a ship yard in the 18th century and clearly began to see some development at this time. Although the core of Workington has much earlier origins it only began to grow substantially between the 16th and 18th centuries, with the development of the quays, and this increased in the 19th century with the coming of the railway and growth of the iron and steel industry.

The site visit revealed that although there are some constraints to further work on the site in the form of dumped rubble and rubbish and also later development, some remains of post-medieval date clearly survive. These are mostly related to the railway but also include an area of housing of at least 18th century origin.

There is relatively little likelihood of archaeological remains of earlier periods being present but some of the more significant post-medieval remains within the proposed development area are worthy of further archaeological work. For the sites with standing remains surviving this should take the form of topographic survey and even building recording, but also evaluation and potentially further excavation. More extensive work, comprising evaluation of a small percentage of the whole site, might also been recommended in order to assess the presence of earlier remains on site.

Acknowledgements

Greenlane Archaeology would like to thank Cumbria County Council for commissioning the project, and Michael Rodney, Major Improvements Engineer (Energy) – Transport (Energy) Team, for providing information about the site. Additional thanks are due to Jeremy Parsons, Historic Environment Officer at Cumbria County Council, for issuing the brief, the staff of Cumbria Archive Centres in Whitehaven (CAC(W)) and Carlisle (CAC(C)) for help with accessing their archives, the staff at Whitehaven Library, and Jo Mackintosh, Historic Environment Records Officer at Cumbria County Council, for help with accessing the HER.

The desk-based assessment and site visit were carried out by Dan Elsworth and Jo Dawson, who also produced the report. The illustrations were produced by Tom Mace. The report was edited by Jo Dawson and the project was managed by Dan Elsworth.

1. Introduction

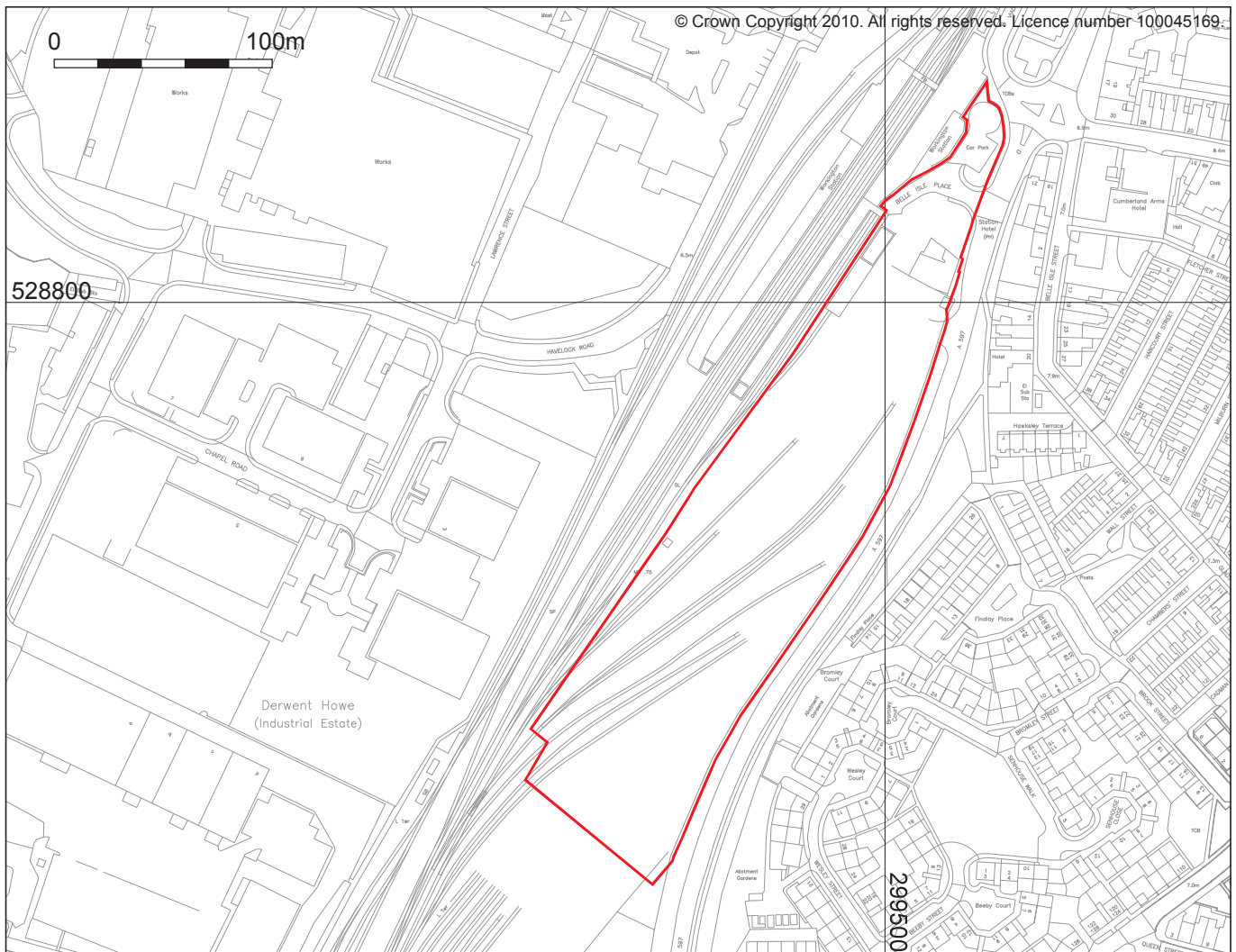
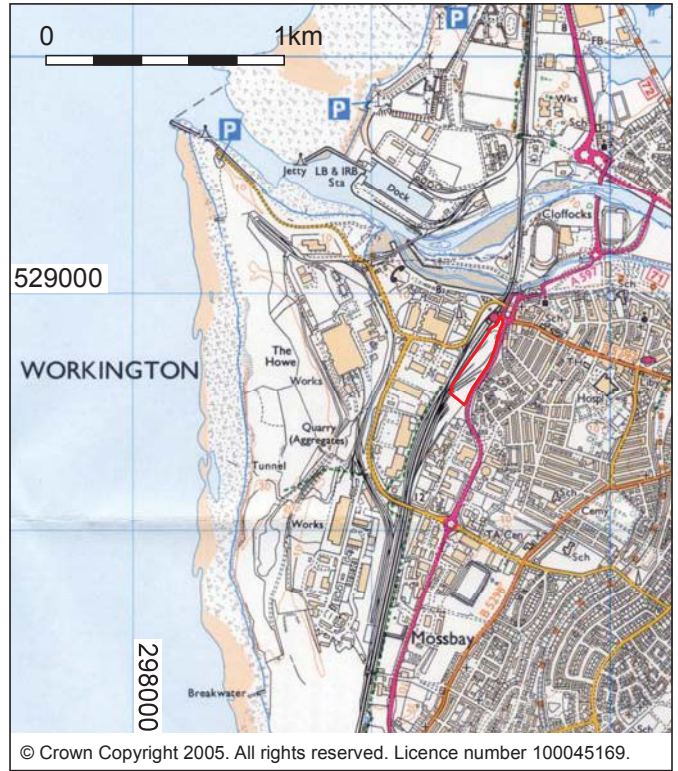
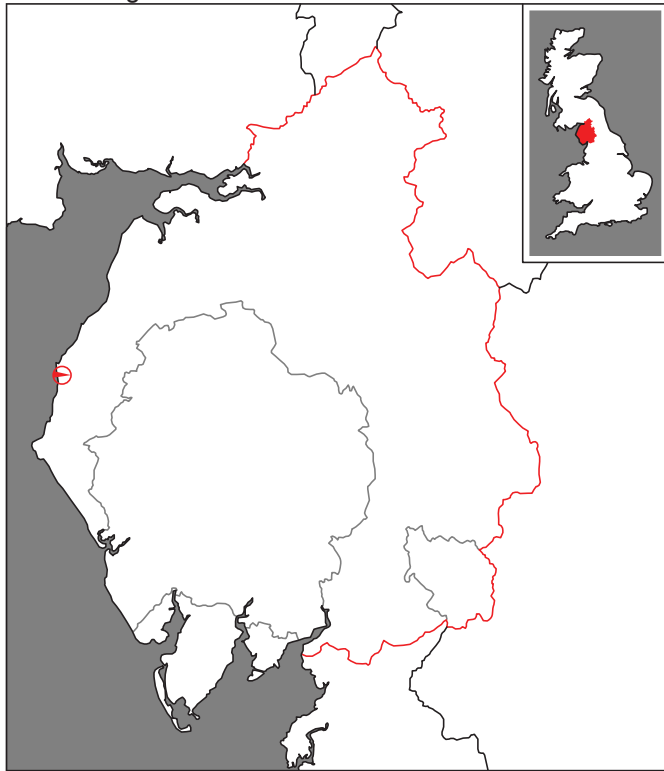
1.1 Circumstances of the Project

1.1.1 As part of pre-planning consultation for the proposed construction of a transport hub on land south of Workington Station, Falcon Street, Workington, Cumbria (NGR NX 9945 2870 (centre)), Jeremy Parsons, Historic Environment Officer at Cumbria County Council, recommended that a programme of archaeological desk-based assessment be carried out. This was intended to establish at an early stage whether the area was likely to have any known sites of archaeological interest within it or whether there was any potential for as yet unknown sites to be present. A brief was prepared by Jeremy Parsons (Parsons 2013) in response to which Greenlane Archaeology produced a project design. Following its acceptance by Cumbria County Council (hereafter 'the client') and approval by Jeremy Parsons, the work was carried out in April and May 2013.

1.1.2 The proposed development site comprises an area of land adjacent to the railway within which were various related structures such as an engine shed and goods shed (Parsons 2013).

1.2 Location, Geology, and Topography

1.2.1 The site occupies an area of relatively level ground to the west of the main town centre adjacent to the estuary of the River Derwent on the north side and bounded by the A597 on the east side and the railway on the west side, with the Conservation Area for Workington is situated to the east and north-east (Figure 2). The whole area is below 10m above sea level (Ordnance Survey 2011) (Figure 1). The solid geology is dominated by Carboniferous Westphalian coal measures but with large amounts of red Permian sandstone of the Penrith group to the north and south (Moseley 1978, plate 1), with overlying glacial deposits forming a landscape generally comprising improved pasture outside of the urban area (Countryside Commission 1998, 27 and 29).



Client: Cumbria County Council

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Figure 1: Site location

2. Methodology

2.1 Desk-Based Assessment

2.1.1 A desk-based assessment was carried out in accordance with the guidelines of the Institute for Archaeologists (IfA 2008). This principally comprised an examination of early maps of the site and published secondary sources. A number of sources of information were used during the desk-based assessment:

- **Cumbria Historic Environment Record (HER):** this is a list of all the known sites of archaeological interest within the county, which is maintained by Cumbria County Council and is the primary source of information for an investigation of this kind. All of the known sites of archaeological interest within 250m of the boundary of the proposed development area were examined; each identified site comes with a grid reference, description and source and any additional information which was referenced was also examined as necessary. In addition, unpublished reports of archaeological investigations in the vicinity of the site were examined;
- **Cumbria Archive Centre, Whitehaven (CAC(W)):** this was visited principally in order to examine early maps and plans of the site, but other documentary sources and published records were also consulted in order to gather information about the historical development of the site and its environs, and also information about the archaeology of its immediate environs;
- **Cumbria Archive Centre, Carlisle (CAC(C)):** this was visited in order to examine further primary sources, the particular intention being to consult the tithe map for the area;
- **Whitehaven Local Studies Library:** secondary sources relating to specific aspects of the local history and archaeology were examined here;
- **Greenlane Archaeology library:** additional secondary sources were examined to provide information for the site background.

2.2 Site Visit

2.2.1 A brief site visit was carried out, primarily with the intention of identifying any areas that might prove constraining to any subsequent archaeological work and whether the site had been affected by any modern activity that might have impacted upon archaeological remains. In addition, the presence of any features, finds, or deposits of possible archaeological interest was noted. Brief written notes were made during the site visit and areas of interest noted on a plan of the site. Colour digital photographs showing the general arrangement of the site and any features of interest were also taken.

2.3 Archive

2.3.1 A comprehensive archive of the project has been produced in accordance with the project design, and current IfA and English Heritage guidelines (Brown 2007; English Heritage 1991). The paper and digital archive and a copy of this report will be deposited in the Cumbria Archive Centre in Whitehaven following the completion of the project. Up to three copies of this report will be provided as necessary for the client and a copy will be retained by Greenlane Archaeology. In addition, at a suitable time a digital copy will be provided to the Historic Environment Record Officer at Cumbria County Council, and a record of the project will be made on the OASIS scheme.

3. Results

3.1 Introduction

3.1.1 A total of 17 sites of archaeological interest were identified within the study area during the desk-based assessment and site visit (*Appendix 1*; summarised in Table 1 below) all of post-medieval date, with the exception of St Michael's Church, which has early medieval origins. All of these sites, with the exception from **Sites 2-5**, were previously recorded in the HER.

Site No.	Type	Period	Site No.	Type	Period
1	Railway	Post-medieval	10	Iron foundry	Post-medieval
2	Wagon shop	Post-medieval	11	Quay	Post-medieval
3	Railway	Post-medieval	12	Quay	Post-medieval
4	Platform?	Post-medieval	13	Public house	Post-medieval
5	Houses	Post-medieval	14	Church	Early-medieval – post-medieval
6	Railway station	Post-medieval	15	Engineering works	Post-medieval
7	Iron foundry	Post-medieval	16	Mill race	Post-medieval
8	Nail foundry	Post-medieval	17	Free school	Post-medieval
9	Gas works	Post-medieval			

Table 1: Summary of sites of archaeological interest within the study area

3.2 Desk-Based Assessment

3.2.1 The results of the desk-based assessment have been used to produce two separate elements. Firstly all sites of archaeological interest recorded within the study area were compiled into a gazetteer (*Appendix 1*). The gazetteer is used to assess the general type of historic landscape that makes up the study area, contribute to the compilation of the general history of the site (see *Section 4*) and, more importantly, identify sites that are likely to be affected by the proposed development. The significance of each of these sites and the degree to which they are likely to be affected is considered in *Section 5* and from this recommendations for further work are produced.

3.2.2 The second purpose of the desk-based assessment is to produce a background history of the site. This is intended to cover all periods, in part to provide information that can be used to assess the potential of the site (particularly for the presence of remains that are otherwise not recorded in the study area), but more importantly to present the documented details of any sites that are known (see *Section 4*).

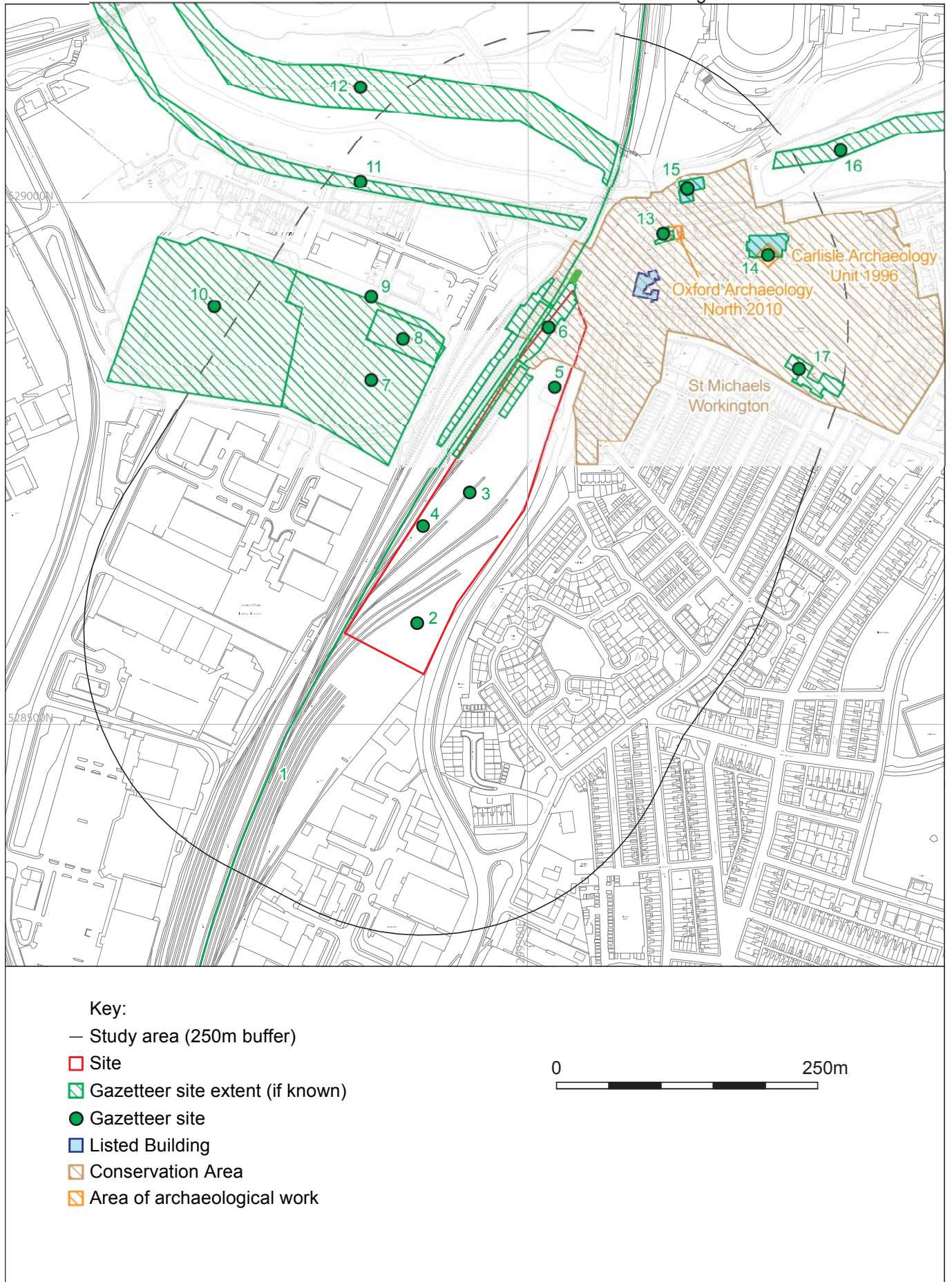


Figure 2: Site gazetteer

3.3 Map and Image Progression

3.3.1 **Introduction:** although various plans are available pre-dating and up to the late 18th century none of these show the site in enough detail to be of much use in interpreting the development of the site, although they do show that the area to the west was unimproved marsh until at least the 18th century. The maps listed below are therefore the most useful.

3.3.2 **Map, 1793:** this plan was originally reproduced in Jollie (1811), but this copy is taken from Byers (1998). The site appears to be just to the east of the area labelled 'Marsh' (Plate 1). However, it is not easy to accurately locate anything on this map, partly due to the scale, also due to the large gap between this and the next map. It appears that the buildings which are shown at the north end of the site on the tithe map may also be present on this map of Workington.

3.3.3 **Map, c1831:** this shows a similar level of detail to the earlier map, although it is seemingly more schematic in terms of the specific details of the site area, although buildings are shown as only basic shapes, and the study area is only on the edge of what is shown on the map (CAC(W) YDX 231/1 c1831). Nevertheless, like the earlier map it does show buildings on the edge or in the area of the proposed development area (Plate 2).

3.3.4 **Tithe map, 1845:** this map (Plate 3) show fields covering most of the site, with a row of three adjoining buildings and gardens at the north end, with two larger building just to the north and still within the site boundary (CAC(C) DRC 8/158 1845). The apportionment gives the details of the plots within the proposed development area including their name, owner and occupier (Table 2). The names of the plots do not denote any obvious areas of archaeological interest, although Clay Flatt may indicate an area where clay was dug and the crofts and gardens are suggestive of land directly associated with a nearby property.

Tithe apportionment no.	Name	Owner	Occupier
22	Croft	John Jolson	John Jolson
23	Clay Flatt	Michael Falcon	Michael Falcon
28	Lousey Croft	Thomas Wilson	William Fisher
52	Mire	Henry Curwen	WB Curwen
53	Ox close	Rev Henry Curwen, Rector of Workington, Glebe	Andrew Little
92	Quay	Trustees of Harbour	Harbour Master
98	House and garden	John Jolson	John Jolson
108	Railway	Railway Company	Railway Company
127	Garden	Mary Ann Hudson	Mr Hodgson
124	Garden	Robert Steel	Miss Fell

Table 2: Information from the tithe apportionment relating to plots within site boundary

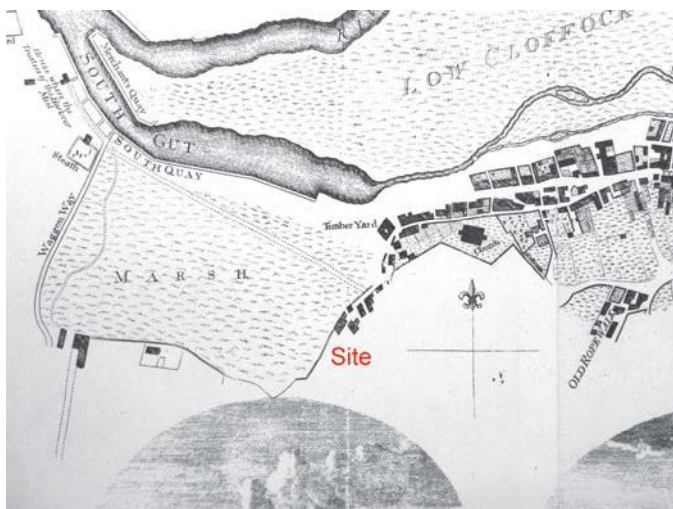


Plate 1 (left): Map of Workington, 1793

Plate 2 (right): Map of Workington, c1831 (CAC(W) YDX 231/1 c1831)



Plate 3: Extract from tithe map, 1845 (CAC(C) DRC 8/158 1845)

3.3.5 **Ordnance Survey c1864:** this map (Plate 4) is similar to the tithe map, but the fields have now been subdivided, and more buildings are shown at the north end of the site. The only one of the buildings to be named is the Station Hotel. Belleisle Place lies partly within the site boundary, as does the junction between Stanley Street, Falcon Place, Belleisle Street, and Belleisle Place. The railway station has now been built to the west of the site, and Patterson Hill is marked to the south of the site, and Priestgate Marsh to the west.

3.3.6 **Ordnance Survey 1866:** this map (Plate 5) was surveyed only one year later than the previous Ordnance Survey map, but forms part of the town plan for Workington, and therefore due to its scale it is far more detailed. No additional buildings are named, however.



Plate 4 (left): Extract from Ordnance Survey map, c1864



Plate 5 (right): Extract from Ordnance Survey map, 1866

3.3.7 **Railway plan, 1884:** this plan (Plate 6) shows the Old Goods Warehouse (to the west of the site) and the New Goods Warehouse (within the site boundary). The Station Hotel building appears to be still there, but is not named. Railway lines associated with the New Goods Warehouse are now within the site boundary as well.

3.3.8 **Railway plan, 1885:** this plan (Plate 7) shows more new lines of track on the south-east of the site, with a Wagon Shop and part of an Engine Shed also falling within the site boundary. There are several new station buildings shown to the west of the site: a Carriage Shed with a Horse and Carriage Landing in front, Station Buildings (Now in course of Erection), and a Waiting Shed on the opposite platform. The four passenger lines and two goods lines are clearly marked.

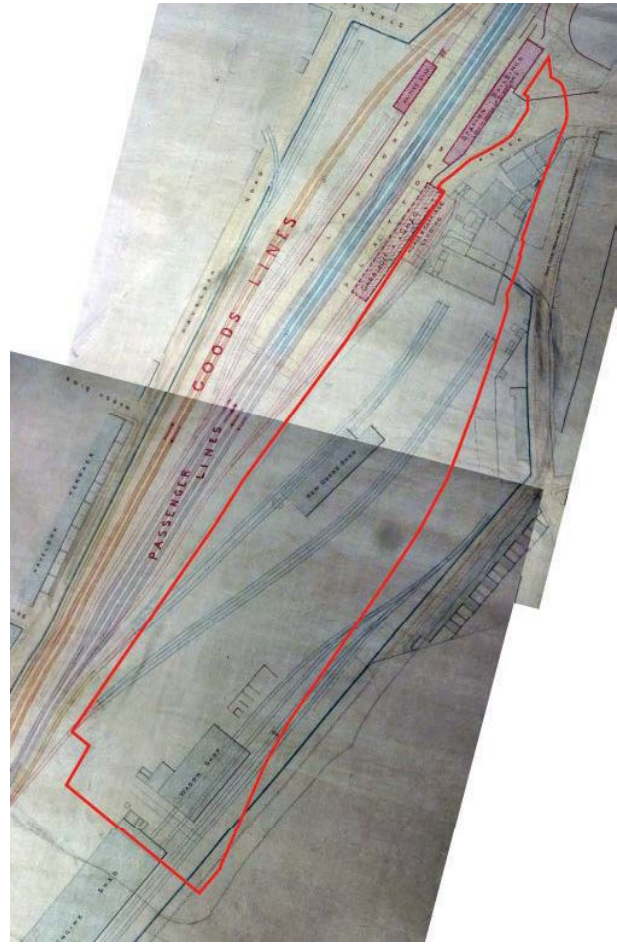
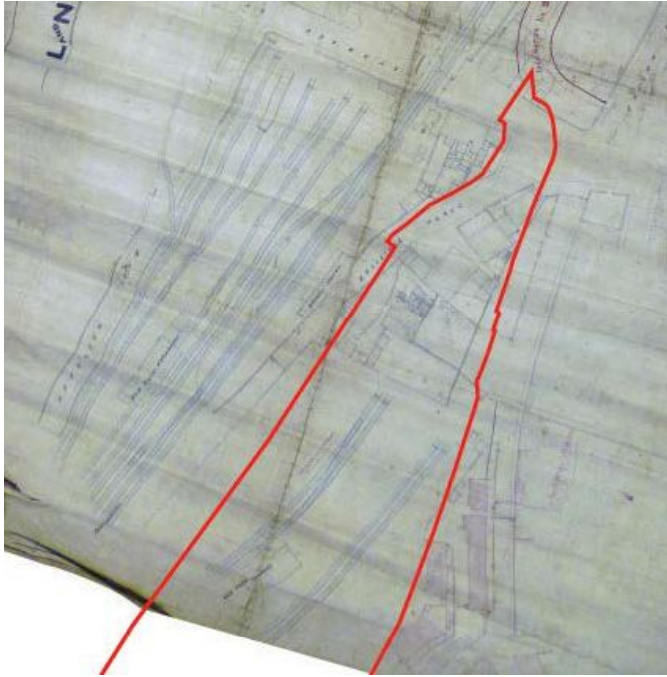


Plate 6 (left): Railway plan, 1884 (CAC(W) TBR 1/3/16/1 1884)

Plate 7 (right): Railway plan, 1885 (CAC(W) TBR 1/3/17 1885)

3.3.9 **Ordnance Survey, 1900:** this map (Plate 8) shows the station buildings, now tightly packed around the station area to the west of the site, and the Goods Shed and the (either new or extended) Engine Shed, plus the unlabelled Wagon Shop, that were shown on the previous plan. There are new lines of railway track within the site, and also cranes, weighing machines, and a tank. The Station Hotel (public house) is also named.

3.3.10 **Ordnance Survey, 1925:** the cranes are no longer marked (Plate 9), but there are otherwise few changes since the previous map.

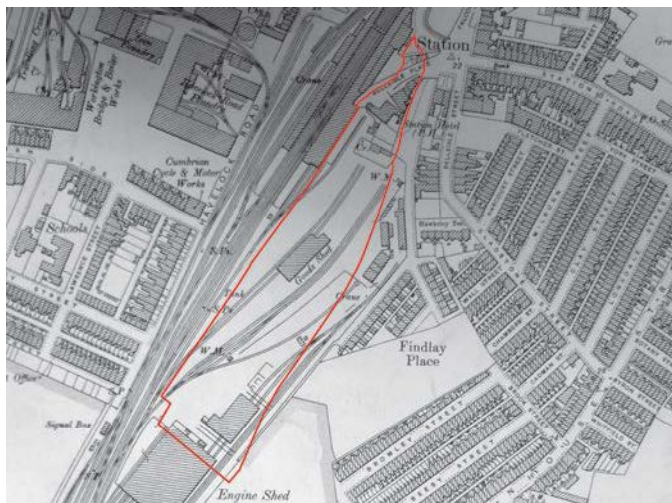


Plate 8 (left): Extract from Ordnance Survey map, 1900



Plate 9 (right): Extract from Ordnance Survey map, 1925

3.3.11 **Ordnance Survey, c1939:** this is a 6 inch map (Plate 10), so is much less detailed than the previous Ordnance Survey maps listed. 'P.H.' still shows the presence of the Station Hotel, and there appear to be no significant changes since the previous map.

3.3.12 **Ordnance Survey, 1951:** this is very similar to the previous map, and at the same scale, but it shows two new buildings to the north-east of the Goods Shed, and also a new turntable (Plate 11).

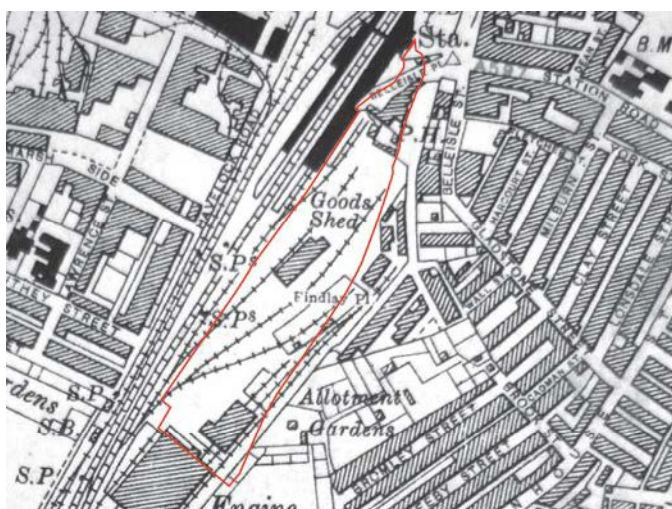


Plate 10 (left): Extract from Ordnance Survey, c1939



Plate 11 (right): Extract from Ordnance Survey, 1951

3.3.13 **Aerial photograph, 1954:** this shows that the buildings at the northern end of the site are still standing (Plate 12). The title of the railway station in the photo caption (Low Station) emphasises that it was not the only railway station in Workington.

3.3.14 **Ordnance Survey, c1975:** this map (Plate 13) is even less detailed than the previous one. However, the arrangement of buildings at the north end of the site seems to have changed. There also appear to be fewer lines of railway track within the site boundaries.



Plate 12 (left): Extract from aerial photograph of 1954, site boundary shown in white (Byers 1999, 45)

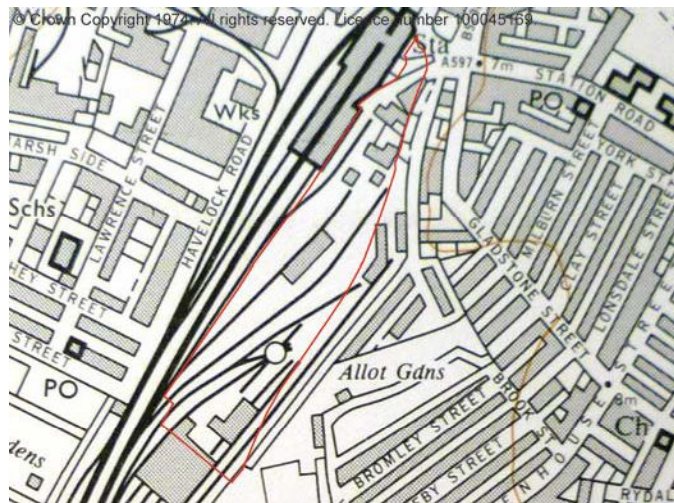


Plate 13 (right): Extract from Ordnance Survey map, c1975

3.3.15 **Ordnance Survey, 1990:** this map (Plate 14) is the same scale as the previous one, and shows that only a handful of the buildings in the north end of the site remain at this time. The wagon shop is no longer present, there are even fewer railway lines than before, and the turntable is not present, either.

3.3.16 **Aerial photographs, 1999:** these photographs (Plate 15 and Plate 16) show that all the buildings at the very north end of the site have now been demolished. There are some single storey flat-roofed buildings and associated structures to the south-east of the station, but these are the only standing buildings now within the site boundaries. Any remaining railway tracks on the site are now no longer in use and are overgrown. At the south end of the site there appears to be a pile of rubble in the approximate location of the former Wagon Shop, and the Engine Shed may be the derelict single-storey building just beyond the site's southern boundary.

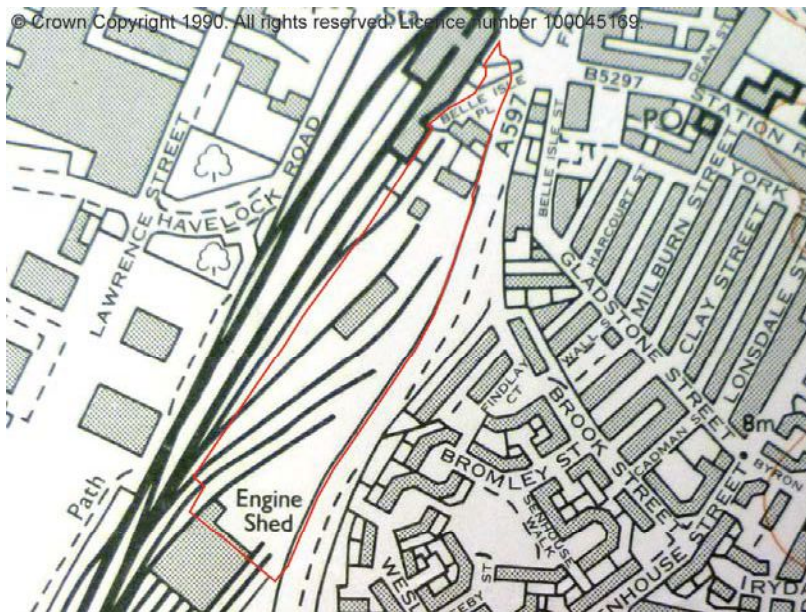


Plate 14: Extract from Ordnance Survey map, 1990



Plate 15: Extract from aerial photograph, 1999, with the site boundary shown in white (Byers 1999, 49)



Plate 16: Extract from aerial photograph, 1999, with the site boundary shown in the white (Byers 1999, 46)

3.4 Site Visit

3.4.1 **Site Arrangement and Character:** the area comprises a long triangular area orientated approximately north-east/south-west, with the point at the north-east end adjacent to the current station building, the north-west side running adjacent to the current railway line, the east side running along the A597 and the south-west end bounded by a metal fence. It is largely covered by scrub but also large areas of tarmac and sett surfacing at the north-east end, including a temporary car park with electric street lighting (Plate 17), and a short tarmac road at the south end. There is some dumped rubble at the south end and fly tipping throughout (Plate 18) but also sections of *in situ* railway track (Plate 19) and buffers (**Site 3**; Plate 20).



Plate 17 (left): Tarmac and sett surface at the north-east end of the site with the temporary car park beyond
Plate 18 (right): Fly tipped rubbish and typical scrub coverage



Plate 19 (left): Section of *in situ* railway track, part of Site 3
Plate 20 (right): *In situ* buffers, part of Site 3

3.4.2 Archaeological Features: there are the remains of three sites of archaeological interest identifiable on site as standing remains, as well as a relatively modern brick structure in the south-west corner. At the north-east end of the site are the ruins of a structure comprising standing walls of brick construction (Plate 21 and Plate 22), apparently of several phases (**Site 5**). Across the centre of the site sections of railway line with buffers remain *in situ* (**Site 3**; Plate 19 and Plate 20), and on the west side of the site a large concrete structure, perhaps representing a former platform is also present (**Site 4**; Plate 23 and Plate 24).



Plate 21 (left): Standing walls comprising Site 5, viewed from the south



Plate 22 (right): Standing walls comprising Site 5, viewed from the north



Plate 23 (left): Concrete platform on the east side of the site (Site 4), viewed from the west



Plate 24 (right): Concrete platform on the east side of the site (Site 4), viewed from the south-west

3.4.3 **Constraints:** the site is likely to have seen considerable disturbance, much of it associated with the construction of the railway, with features relating to this still surviving, but also due to later activity. The presence of services across the site is very likely, with live electric cables clearly present in the area of temporary car parking at the south end of the site, and there are also likely hazards in the dumped and fly tipped material across the site area.

3.5 Conclusion

3.5.1 The map regression shows that the area was on the outskirts of the town between the edge of the town and an area of unimproved wetland known as the Marsh. However, by the end of the 18th century buildings had begun to appear at the north edge of the proposed development area and during the later 19th century it was rapidly developed, probably largely on account of the arrival of the railway. The proposed development area is wholly connected to the railway from this point onwards and saw the construction and ultimately demolition of several buildings between the end of the 19th century and beginning of the 21st.

3.5.2 The site visit revealed that although heavily overgrown and subject to disturbance from dumped material and recent development, such as the creation of a temporary car park, some elements relating to the railway have survived, albeit in a fragmentary condition. No evidence for earlier remains of

archaeological interest was present, although this would inevitably have been adversely affected by work relating to the railway.

4. Site History

4.1 Introduction

4.1.1 The history of the local area is inevitably dominated by the development of Workington, although the study area is only on the edge of the town. Earlier remains tend to be more general, however, and are applicable to the wider region, while the site's proximity to St Michael's church, which has evidence of use from the early medieval period, is also of interest although unlikely to be especially relevant to the proposed development.

4.2 Prehistoric Period (c11,000BC – 1st century AD)

4.2.1 While there is limited evidence for human activity in the county in the period immediately following the last Ice Age, this is typically found in the southernmost part on the north side of Morecambe Bay. Excavations of a small number of cave sites have found the remains of animal species common at the time but now extinct in this country and artefacts of Late Upper Palaeolithic type (Young 2002). No remains of this date are known from the immediate area of the site, although a pair of barbed spear heads made from antler were found at Crosby-on-Eden (Hodgson 1895), which, although undated, may belong to the end of the Palaeolithic or early Mesolithic. The county was clearly more densely inhabited during the following period, the Mesolithic (c8,000 – 4,000 BC), as large numbers of artefacts of this date have been discovered during field walking and eroding from sand dunes along the coast, but these are typically concentrated in the west coast area and on the uplands around the Eden Valley (Cherry and Cherry 2002). More recently a particularly large assemblage has been recovered during excavations, directly on the edge of the River Eden, outside Carlisle (Clark 2010) and field walking has found additional scatters of some significance also in the Eden valley near Penrith (Clarke *et al* 2008). Coastal areas and river valleys are notably places where such material is frequently found in the wider region (Middleton *et al* 1995, 202; Hodgkinson *et al* 2000, 151-152; Hodgson and Brennand 2006, 26).

4.2.2 In the following period, the Neolithic (c4,000 – 2,500 BC), large scale monuments such as burial mounds and stone circles begin to appear in the region and one of the most recognisable tool types of this period, the polished stone axe, is found in large numbers across the county, having been manufactured at Langdale in the central Lake District (Hodgson and Brennand 2006, 45). During the Bronze Age (c2,500 – 600 BC) monuments, particularly those thought to be ceremonial in nature, become more common still, and it is likely that settlement sites thought to belong to the Iron Age have their origins in this period. Sites of this type, while not present in the study area, are recorded, typically as crop marks revealed in aerial photographs, in the wider area although they are typically undated and little understood. In addition, there is likely to have been a considerable overlap between the end of the Iron Age and the beginning of the Romano-British period; it is evident that in this part of the country, initially at least, the Roman invasion had a minimal impact on the native population in rural areas (Philpott 2006, 73-74). While no sites of prehistoric date are known from within the study area, various stray finds of Bronze Age date are known from the area around Workington (Byers 1998, 4).

4.3 Romano-British to Early Medieval Period (1st century AD – 11th century AD)

4.3.1 There are few finds of Roman date from within Workington itself and the nearest fort is at Burrow Walls to the north. This has been known for some time but was only excavated in detail in the 1950s at which time it was found to have been established in the 2nd century, perhaps on a site originally occupied by a watch tower (Bellhouse 1955), with later remodelling in the 4th century (Shotter 2004, 163).

4.3.2 Physical and archaeological evidence from the post-Roman early medieval period is rare across the whole region although Workington, by contrast, does have some significant remains of this date. The west coast of Cumbria is well known for its collection of early medieval crosses (Newman 2006, 102), but corresponding structural evidence is generally rare. However, excavations at St Michael's church at Workington (**Site 14**) represent one of the few occasions where remains, comprising burials and structural elements, associated with crosses of this type have been uncovered (Carlisle Archaeological

Unit 1996; Flynn 1997) but other evidence exists for religious establishments in the local area from as early as the 7th century (Todd 2003). Further north, ongoing work at Maryport is revealing what appears to be a very early church, extending in use into the post-Roman period (Haynes and Wilmott 2012). Place-name evidence in general shows a mixture of Anglian and Norse names in the local area (Armstrong *et al* 1950, 454-455), indicating that the area was well inhabited during the period. The name Workington, meaning the town of Weorc's people, suggests it was an important Anglian settlement (*op cit*, 455). That there was also an important settlement with an ecclesiastical centre in Workington from an early date is also implied by the account of the movement of St Cuthbert's relics in the 9th century; a failed attempt to take them to Ireland was launched from the mouth of the River Derwent, which is taken as a reference to Workington (Rollason 2000, 115).

4.3.3 There are no sites of Roman date from within the study area and the only site with evidence for early medieval activity within the study area is the Church of St Michael (**Site 14**).

4.4 Medieval Period (11th century AD – 16th century AD)

4.4.1 Workington was clearly well established as a town by the medieval period, although little archaeological evidence relating to this has ever been uncovered. The Roman fort at Burrow Walls was re-used in the medieval period to form a manorial centre for the ancestors of the Curwen family, with Orme son of Ketel establishing a tower there before his ancestor abandoned it in the 12th century for the site of the present Workington Hall although the details are difficult to ascertain with any certainty (Blake 1955). During the medieval period fishing appears to have been the main economic basis of the town and there are a number of documentary references to it (OA North 2010, 12).

4.4.2 The only site of medieval date within the study area is the church of St Michael (**Site 14**), although the Workington Hall mill race (**Site 16**) may also be of medieval origin.

4.5 Post-Medieval (16th century AD – present)

4.5.1 During the late 16th century the port at Workington began to be developed through the influence of the Mines Royal Company (Byers 1998). The town soon began to grow, partially as a result of this, during this period but it was the large scale exploitation of the coal reserves in the local area from the 18th century onwards that brought about the most substantial changes (Hartley and Hardman 2002). This included the creation of proper quays (**Sites 11 and 12**) and the gradual reclamation of the Marsh area, in part by the dumping of ballast but also by controlling the flow of high tidal water across it (Byers 1998). In connection to this aspect of the town's development it is said that the site of the present station (**Site 6**) originally housed a ship yard known as High Yard, established c1735 and run by the Falcon family after whom Falcon Street is named (Byers 1999, 45). During the 19th century the town continued to grow, with the iron and steel industries of particular importance at this time (Jackson and Jackson 1988, 37). The coming of the Whitehaven Junction Railway to Workington, which was opened in 1856 (Andrews 2012, 47; **Site 1**) was a major contributing factor to these developments and led to the construction of a number of related structures (**Sites 2-4**).

4.5.2 Apart from those sites already mentioned many sites of industrial type from this period are also recorded within the study area comprising foundries and engineering works (**Sites 7, 10 and 15**), a nail manufactory (**Site 8**), and a gas works (**Site 9**). In addition an area of housing (**Site 5**), a former public house (**Site 13**), the church (**Site 14**), the Workington Hall mill race (**Site 16**), and a free school (**Site 17**) also all belong to this period.

4.6 Previous Archaeological Work

4.6.1 Two pieces of previous archaeological work have been carried out within the study area; an evaluation at St Michael's Church (Carlisle Archaeological Unit 1996), a summary of which was subsequently published (Flynn 1997), and a watching brief at 109 Church Street, Workington (OA North 2010).

4.6.2 The evaluation at the church revealed both burials and structural remains, including an *in situ* cross base, as well as additional fragments of cross shaft, demonstrating the potential for extensive early medieval remains to be present. The watching brief revealed remains of post-medieval tenements, although possible medieval masonry was found re-used on site, and the evidence indicates that the site was not developed until the 18th century.

5. Discussion

5.1 Introduction

5.1.1 The discussion of the results of the desk-based assessment and site visit are intended to determine the archaeological significance and potential of any known remains (above or below ground) and the potential for any as yet unidentified remains being present. The system used to judge the significance of the remains identified within the development area, or those thought to have the potential to be present within the development area, is based on the criteria used to define Scheduled Monuments (DoE 1990, Annex 4; *Appendix 2*). Of the 17 sites identified within the study area, four are situated within the proposed development area and they are therefore likely to be affected by any subsequent groundworks.

5.2 Significance

5.2.1 Four sites of archaeological interest are recorded within the proposed development area (**Sites 2-5**), the majority of which relate to the railway and are of post-medieval date.

5.2.2 The level of significance of the features within the proposed development area is categorised, according to each criterion, as high, medium, or low, and an average of this has been used to produce an overall level of significance for each site (see Table 3 below: H=high, M=medium, L=low). As can be seen in Table 3 all of these sites are considered to be of essentially medium significance.

Site	Site 2	Site 3	Site 4	Site 5
<i>Period</i>	M	M	L	M
<i>Rarity</i>	L	L	L	L
<i>Documentation</i>	M	M	L	H
<i>Group value</i>	M	M	M	H
<i>Survival/condition</i>	M	M	M	M
<i>Fragility/Vulnerability</i>	M	M	M	M
<i>Diversity</i>	M	M	L	M
<i>Potential</i>	M	M	L	M
Significance	M	M	L-M	M

Table 3: Significance by site

5.3 Potential for Unknown Archaeological Remains

5.3.1 The details of those archaeological remains present within the proposed development area are presented in the results of the desk-based assessment (*Section 3*; *Figure 2*; *Appendix 1*) and the significance of these sites is discussed above (*Section 5.2*). The potential for as yet unidentified archaeological remains to be present, however, is based on the known occurrence of such remains elsewhere in the study area and local environs (see *Section 4*). Where there are no remains known within the study area the potential is based on the known occurrence within the wider local area. The degree of potential is examined by period and the results are presented in Table 4 below; in each case the level of potential is expressed as low, medium, or high.

Period	Present in study area?	Potential
Late Upper Palaeolithic	N	L
Mesolithic	N	M
Neolithic	N	L
Bronze Age	N	L
Iron Age	N	L
Roman	N	L
Early Medieval	Y	L
Medieval	Y	M
Post-medieval	Y	H

Table 4: Degree of potential for unknown archaeological remains by period

5.3.2 In consideration of Table 4 it is worth noting that the possibility of finding Mesolithic remains is assessed as medium because they are often associated with sites adjacent to watercourses and the coast (Middleton *et al* 1995, 202; Hodgkinson *et al* 2000, 151-152). Sites of Bronze Age and Iron Age date are relatively rare from the general area, and none are present within the study area. Roman sites, while more common in the general area, are also not recorded in the study area.

5.3.3 The early medieval and medieval period are represented by a single site, St Michael's church (**Site 14**), but the nature of this site and the general rarity of such remains, particularly early medieval, make it unlikely that remains of this date would be found within the proposed development area. The site was on the edge of an area of marsh before being developed in the 19th century so the likelihood of medieval remains being present on much of the site is unlikely; however the origin of the buildings represented by **Site 5** is uncertain and could begin in the medieval period. The site was clearly well developed during the later 19th century and it is clear that remains from this period will be present on site.

5.4 Disturbance

5.4.1 Any remains pre-dating the 19th century will almost certainly have been disturbed by the development of the railway, although they could have survived in some of the large areas covered only by track. Subsequent use of the site more recently has also undoubtedly disturbed archaeological remains and there are likely to be below-ground services across the site connected to the various buildings that were standing into the 20th century.

5.5 Impact

5.5.1 Although no detailed plans were available regarding proposed developments, the nature of the ground cover and topography, which would presumably require considerable landscaping, would suggest that any building on site would substantially impact on any archaeological remains that might be present.

5.6 Recommendations

5.6.1 It is clear from the preceding sections that it is likely that archaeological remains of post-medieval date, particularly those relating to the railway, will be present within the proposed development site. The potential for earlier remains to be present is less certain, although they would be likely to have been disturbed by later activity on site.

5.6.2 As a minimum it is recommended that the areas known to contain the remains of buildings recorded (**Sites 2, 3 and 5**) be subject to further archaeological work, with the standing elements of **Site 5** being subject to topographic survey and even building recording and then these sites being subject to archaeological evaluation, with further excavation being carried out depending on the extent to which remains are found to survive. Ideally, further sample evaluation of a percentage, perhaps between 1-3%, of the whole of the proposed development area should also be carried out in order to ascertain whether earlier remains are present. Given the current condition of the site it is possible that some vegetation

may need to be cleared and rubbish removed before any archaeological work takes place, but this could be carried out as part of the work if required.

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Appendix 1: Site Gazetteer

Site Number: 1

NGR: 297440 518600

HER No: 43833

Sources: HER

Designation: None

Description: Extant railway, originally part of the 'Whitehaven Junction Railway', as shown on the 1st edition Ordnance Survey map and the 'L&NWR Whitehaven Junction Railway' on the 2nd edition.

Period: Post-medieval

Site Number: 2

NGR: 299387 528592

HER No: -

Sources: CAC(W) TBR 1/3/17 1885; Ordnance Survey 1900; 1925; c1939; 1951;1990

Designation: None

Description: Site of the former 'Wagon Shop' as recorded in various early maps.

Period: Post-medieval

Site Number: 3

NGR: 299424 528650

HER No: -

Sources: Site visit; CAC(W) TBR/1/3/16/1 1884; CAC(W) TBR 1/3/17 1885; Ordnance Survey 1900; 1925; c1939; 1951;1990

Designation: None

Description: Sections of extant railway track and buffers surviving on the site which form part of the sidings shown at Workington Station on plans from 1884 onwards. This area was also the site of at least one goods shed, although this is labelled 'New Goods Shed' on a plan of 1884 and so presumably replaced an earlier one.

Period: Post-medieval

Site Number: 4

NGR: 299412 528698

HER No: -

Sources: Site visit

Designation: None

Description: Concrete structure, apparently a platform still standing on the site.

Period: Post-medieval

Site Number: 5

NGR: 299521 528812

HER No: -

Sources: Site visit; Plan of 1793; CAC(C) DRC 8/158 1845; CAC(W) YDX 231/1 c1831; Ordnance Survey c1864; 1866; 1900; 1925; c1939; 1951;1990

Designation: None

Description: Ruined structural remains at the north end of the site, corresponding to a larger collection of buildings shown in the area from at least 1793.

Period: Post-medieval

Site Number: 6

NGR: 299520 528880

HER No: 40505

Sources: HER

Designation: None

Description: Workington Railway station, originally known as the Low Station because it was at the low end of town. In 1881 a goods yard and buildings were erected. The station itself was rebuilt in 1886.

Period: Post-medieval

Site Number: 7

NGR: 299350 528830

HER No: 40500

Sources: HER

Designation: None

Description: The site of the Workington Bridge and Boiler Co Ltd, built some time after 1867 and incorporating an earlier nail factory (**Site 8**).

Period: Post-medieval

Site Number: 8

NGR: 299380 528870

HER No: 40497

Sources: HER

Designation: None

Description: Site of a nail factory shown on the Ordnance Survey 1st edition map.

Period: Post-medieval

Site Number: 9

NGR: 299350 528910

HER No: 40508

Sources: HER

Designation: None

Description: Site of the Stanley Street gas works, established by a private company in 1840 and taken over by the town in 1847.

Period: Post-medieval

Site Number: 10

NGR: 299200 528900

HER No: 40502

Sources: HER

Designation: None

Description: The site of Kirk Bros & Co Ltd, who manufactured pig iron for use in their own works, which were also situated in Workington.

Period: Post-medieval

Site Number: 11

NGR: 299340 529020

HER No: 40498

Sources: HER

Designation: None

Description: Site of the South Quay, built to the south of the harbour in Workington by 1777. It is now known as Town Quay and used as a road.

Period: Post-medieval

Site Number: 12

NGR: 299340 529110

HER No: 40499

Sources: HER

Designation: None

Description: Site of 'Merchant's Quay', built when a sandbank was reinforced during the development of the original harbour and the reclamation of Priestgate Marsh to the south in the late 18th century.

Period: Post-medieval

Site Number: 13

NGR: 299630 528970

HER No: 43599

Sources: HER

Designation: None

Description: This property was formerly The Sailor's Return public house.

Period: Post-medieval

Site Number: 14

NGR: 299730 528950

HER No: 1011

Sources: HER

Designation: Grade II* Listed

Description: St Michael's Church, Workington. The earliest elements of the standing fabric date to the 12th century but there is long thought to have been an earlier structure on the site. The remains of earlier cross fragments, dating from as early as the 7th century, were found in the 1920s and excavations carried out in the 1990s revealed more fragments, some built into the foundations of the standing building.

Period: Early-medieval – post-medieval

Site Number: 15**NGR:** 299653 529013**HER No:** 5514**Sources:** HER**Designation:** Grade II Listed**Description:** Joseph Pirt and Co Engineering Works, a chapel-like building with 'Gothic' detail remains. The foundry supplied mining machinery to the area and was established in the late 18th to early 19th century.**Period:** Post-medieval

Site Number: 16**NGR:** 299800 529050**HER No:** 11501**Sources:** HER**Designation:** Registered Park (Grade II)**Description:** Workington Hall mill race, shown on a plan of 1777 and on a map of 1569, although not labelled on the latter. It diverted water from the River Derwent to Workington Hall mill or an earlier mill. The mill race was diverted to the north of The Green prior to c1900 and again from Cloffocks Junction to the north when The Green Recreation Ground was created after 1900. Sections of the existing water course have been canalised.**Period:** Post-medieval

Site Number: 17**NGR:** 299760 528840**HER No:** 40509**Sources:** HER**Designation:** None**Description:** The former Church of England Free School, now divided into a school house and youth service building.**Period:** Post-medieval

Appendix 2: Significance Criteria

After DoE 1990, Annex 4: 'Secretary of State's Criteria for Scheduling Ancient Monuments'

- i) *Period*: all types of monuments that characterise a category or period should be considered for preservation;
- ii) *Rarity*: there are some monument categories which in certain periods are so scarce that all surviving examples which retain some archaeological potential should be preserved. In general, however, a selection must be made which portrays the typical and commonplace as well as the rare. This process should take account of all aspects of the distribution of a particular class of monument, both in a national and regional context;
- iii) *Documentation*: the significance of a monument may be enhanced by the existence of record of previous investigation or, in the case of more recent monuments, by the supporting evidence of contemporary written records;
- iv) *Group Value*: the value of a single monument (such as a field system) may be greatly enhanced by its association with related contemporary monuments (such as a settlement and cemetery) or with monuments of different periods. In some cases, it is preferable to protect the complete group of monuments, including associated and adjacent land, rather than to protect isolated monuments within the group;
- v) *Survival/Condition*: the survival of a monument's archaeological potential both above and below ground is a particularly important consideration and should be assessed in relation to its present condition and surviving features;
- vi) *Fragility/Vulnerability*: highly important archaeological evidence from some field monuments can be destroyed by a single ploughing or unsympathetic treatment; vulnerable monuments of this nature would particularly benefit from the statutory protection which scheduling confers. There are also existing standing structures of particular form or complexity whose value can again be severely reduced by neglect or careless treatment and which are similarly well suited by scheduled monument protection, even if these structures are already listed historic buildings;
- vii) *Diversity*: some monuments may be selected for scheduling because they possess a combination of high quality features, others because of a single important attribute;
- viii) *Potential*: on occasion, the nature of the evidence cannot be specified precisely but it may still be possible to document reasons anticipating its existence and importance and so to demonstrate the justification for scheduling. This is usually confined to sites rather than upstanding monuments.