

Noss on Dart Marina, Kingswear, Devon;
Archaeological Monitoring, Car Park Site



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Cornwall Archaeological Unit

Cornwall Council

Fal Building, County Hall, Treyew Road, Truro, Cornwall, TR1 3AY

Tel: (01872) 323603

Email: enquiries@cau.org.uk Web: www.cau.org.uk

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Within CAU the Project Manager was Cathy Parkes, who also undertook the fieldwork. Anna Lawson-Jones identified the flint.

The views and recommendations expressed in this report are those of Cornwall Archaeological Unit and are presented in good faith on the basis of professional judgement and on information currently available.

Freedom of Information Act

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Cover illustration: Flooring of ruined building in the south east corner of the site, looking north west towards the River Dart.

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Abbreviations

CAU	Cornwall Archaeological Unit
CIfA	Chartered Institute for Archaeologists
LPA	Local Planning Authority
NGR	National Grid Reference
OS	Ordnance Survey
WSI	Written Scheme of Investigation

1 Summary

Cornwall Archaeological Unit (CAU) carried out archaeological monitoring in 2020 for Devon Contractors Ltd, at Noss Marina on the former Noss shipyard on the estuary of the River Dart at Kingswear, near the south coast of Devon. The monitoring was at the site of a new decked car park, on the north side of Higher Noss Point. This is a small, distinctive, ridged promontory running out into the east side of the Dart. Alongside it on the north is a small side branch of the estuary, Noss Creek. The historic port and town of Dartmouth lies on the other side of the main river.

Asbestos was present in many places at the location of the new car park, having been used extensively in shipyard buildings, and dumped in the past down the steep slope of Higher Noss Point on the south, and incorporated in the made ground extending from there into the former side creek below. This affected the archaeological monitoring of the works, requiring safety measures which had the effect of delaying and prolonging works, and effectively restricting feasibility of continuous machine stripping with a grading bucket or options of trowelling or cleaning by hand.

However, the monitoring produced, from the cutting back of the slope on the south edge of the site, some evidence relating to aspects of the history of Noss Shipyard, and to archaeological potential for buried earlier remains here.

A substantial ruin on the south east dates from the first (turn of the 20th century) Simpson and Strickland phase of the yard. Standing on the old shoreline, it is interpreted as a workshop and store for wharf related trade. It had flooring of brick and lime ash probably in a single storey outshut, and its main roof may have had ridge tiles resembling those of the extant shipyard office buildings of similar date to the west. The main part of this building was adapted in the mid 20th century, most likely during the Second World War when the yard was used in preparation for D-Day, with walling made of shuttered concrete like that used for gridirons for D-Day vessels on the Dart nearby which are now Scheduled Monuments.

A smaller building on the south west of the car park area, also on the former shoreline so perhaps a boathouse, may date from the earlier years of the Philips ownership of the yard, in the first half of the 20th century.

The made ground reclaimed from Noss Creek covering most of the car park site showed several layers of stony or clayey infill with no archaeological significance. No evidence for activity pre-dating the ruined shipyard buildings was found on the former shoreline on the south of the monitored area. Although the works affecting this former shore were not completely monitored, it appeared that archaeological potential for buried early settlement-related remains here is very limited because of the steepness of this north side of the Point, as a result of which platforms for the old shipyard buildings had to be cut into bedrock.

A Bronze Age flint core found during the CAU project, outside but close to the monitored area, was in redeposited material, and may have come from the Point, or elsewhere. There may, however, be potential for remains of prehistoric activity on the top of Higher Noss Point, above the monitoring area. People will have used Noss Creek for fishing and navigation from prehistoric times, and the intervisibility of the top of the Point with a hillfort north east of the creek head may suggest that the promontory could have had a role relating to past use of that central place.

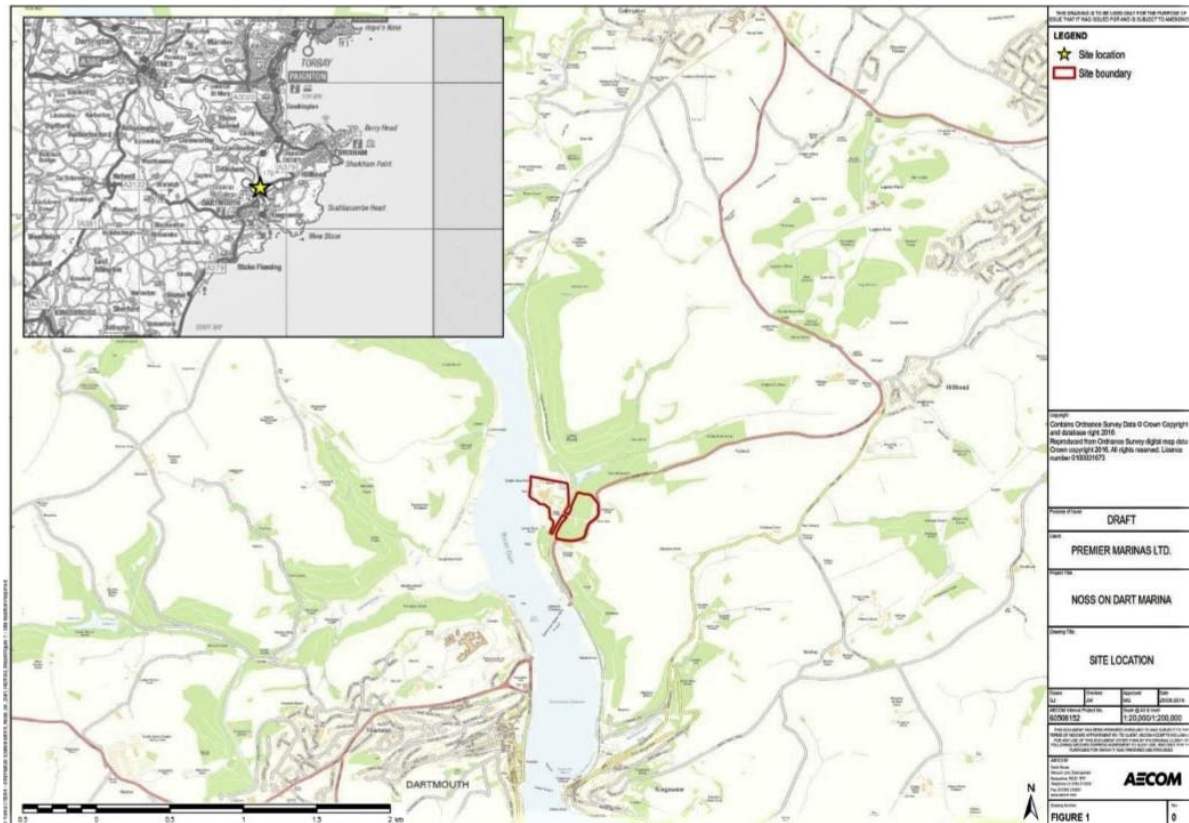


Fig 1 Map showing location of wider marina complex on the River Dart (outlined in red) from client's WSI (Service 2018, 14).

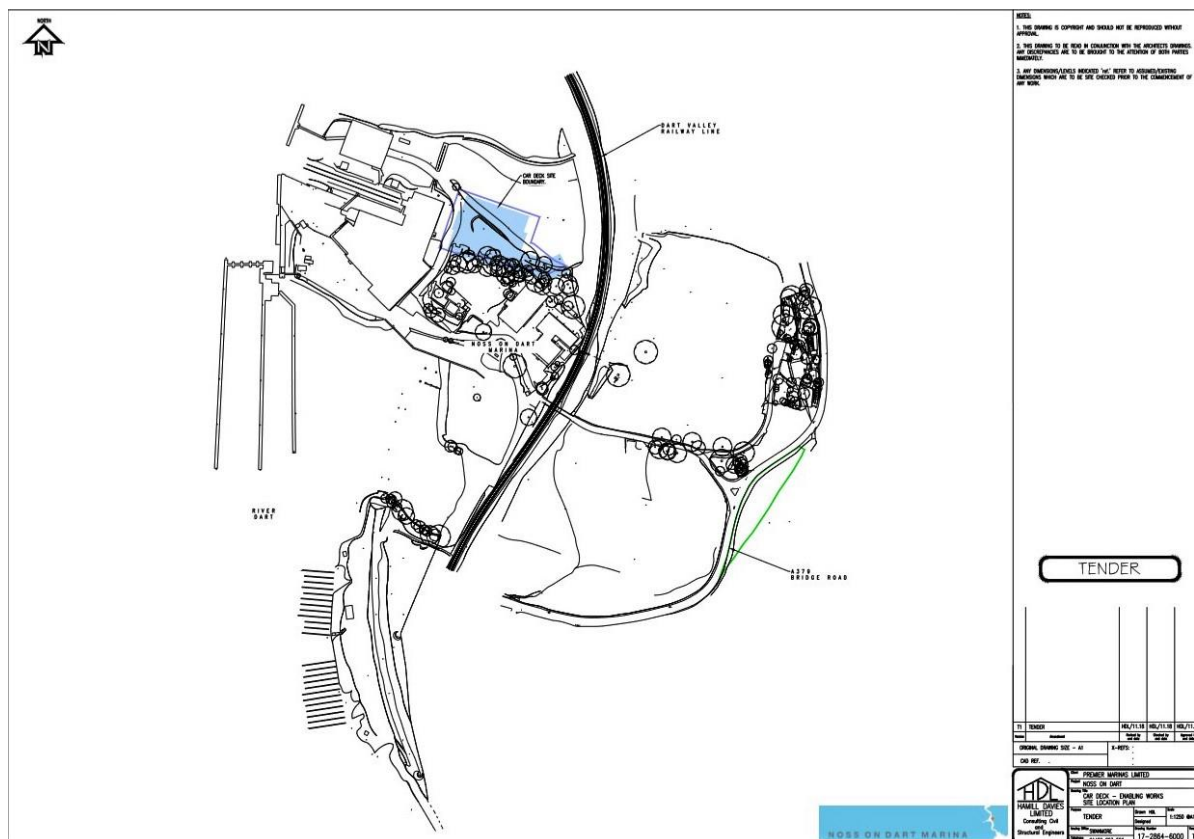


Fig 2 Client's plan showing location of monitoring at car park site (shaded blue) within the marina complex as existing.



Fig 3 Client's plan of development scheme showing the car park towards the top right.

2 Introduction

2.1 Project background

Cornwall Archaeological Unit (CAU) carried out archaeological monitoring in 2020 for Devon Contractors Ltd, at Noss Marina on the River Dart at Kingswear, South Devon (Figs 1 and 2). The archaeological project was required to satisfy a requirement for monitoring made by the Local Planning Authority (planning references 2161/17/OPA and 2161/17/FUL). Further details of the background and the aims and methods of the project can be found in the Written Scheme of Investigation (WSI) reproduced in this report as Appendix 1. The area monitored is the site of a new car park, on the north side of Higher Noss Point, west of the railway line, within the wider extent of marina-related development also covered by the WSI (Fig 3).

2.2 Location and setting

Higher Noss Point, the operational centre of a historic shipyard and of the modern marina, is a small, distinctive, ridged promontory running out into the east side of the estuary of the River Dart in south Devon. Alongside the Point on the north is a small side branch of the estuary, Noss Creek (Fig 10). The historic port and town of Dartmouth lies on the other side of the main river. The area monitored was that excavated into bedrock to provide a sunken base for a new decked car park on the north side of the Point (Figs 1 and 2). The bedrocks in the vicinity are the slates and sandstones of the Lower Devonian (Devon RIGS Group website) and soils are the Denbigh 1 series of typical brown earths (Soil Survey of England and Wales 1983).

The area excavated for the new car park was rectangular in plan (Fig 3). It measured c45m WNW-ESE by 35m and was c4m deep at the end of the monitoring. On the south the works took in a strip up to c3.5m wide along the base of the steep north slope of the ridge of the Point, on the historic shoreline. The remainder of the works affected built up or 'made ground' extending north from there to reclaim a substantial part of the former tidal mud flats of Noss Creek. This made ground had been used previously as an open working area for the shipyard and as a boat storage and parking site for the marina. Along the old shoreline on the south a c2m wide grading bucket was used for parts of the machine excavation, with a toothed bucket used to remove stumps, masonry, concrete rafts and bedrock.

The topography and land reclamation can be appreciated from the client's survey showing the steep north side of the Point falling to the former shoreline on the south edge of the car park area (Fig 3). An even steeper scarp to the south west is a cutting for the railway line on the east side of the Dart Valley, which ran across the Point here and over viaducts to either side before being re-routed further east (Fig 29).

3 Notes on results and their presentation

The results from the archaeological monitoring are discussed in the following Sections 4 and 5; they are presented in chronological order, and within this, in a sequence moving clockwise around the monitoring area from the east. The sites where significant results were recorded are shown and numbered in blue on Figure 8, as sites **5-8**, and are referred to by these numbers in the report text.

Context descriptions are given in a table forming Appendix 2. Context numbers were issued from a continuous sequence 101-116. Numbers for deposits are denoted in round brackets, for example (101), and those for structures have no brackets for example, 103. Flooring recorded in the ruined building on the south east at site **5**, cut away during the regrading of the slope there, is shown in plan with its context numbers in Figure 9. Context numbers at other sites around the area refer to modern or natural features and these are recorded by photographs rather than in plan.

Artefacts found are mentioned in the course of the report text rather than tabulated as there were no early or otherwise important stratified finds. Concerning the scope of the monitoring several points should be noted;

- Numbers **1-4** in Figure 8 refer to features observed during the period of the monitoring, but outside the excavated area covered by this; they are included to contribute to understanding of the development and history of the site.
- Two upstanding ruined buildings on the south of the area by the old shoreline, sites **5** and **7** (see Fig 8, and also the client's topographical survey, Fig 3, which shows them) were affected by the car park works in that their floors were cut away as part of the regrading of the base of the slope of the Point (the north walls of the buildings had been removed previously). The floors were monitored and recorded in part, due to the presence of asbestos in the fill of the building (101).

(Recording of the surviving, rear walls of the two ruins was not included in the scope of the monitoring project; and the walls were densely overgrown and inaccessible to examine because of this and the steepness of the slope.)

- Asbestos from buildings elsewhere on the Point was present in many parts of the site. This together with the works' careful procedures to manage the risk from it meant that progress of the works was subject to repeated delays and also that it was not possible to carry out systematic grading or excavation by hand across the slope and former shoreline on the south edge of the site which was the main focus of the monitoring.

4 Archaeological results and their significance

This discussion is informed by a summary of the history of the Noss Shipyard included in the Written Scheme of Investigation (WSI) for the works (Sharpe 2018). The WSI is included as Appendix 1 in the present report, and page references to it given here relate to those in the Appendix version.

4.1 Bronze Age (c2000-800 cal BC)

A large knapped flint was found in re-deposited stony clay east of the monitored car park area, at site **1** where silt storage had recently been installed (Figs 12 and 13). This is a core of good quality grey flint measuring up to c7cm, probably Bronze Age in date, perhaps Middle rather than Early Bronze Age (Anna Lawson-Jones, pers comm). It may have come originally from the north east corner of the Point adjoining, where the access to the silt storage area has been cut down from the level of the monitoring area prior to the excavation of this, although it is also possible it was brought in by chance with material from somewhere other than Higher Noss Point.

The flint, if from the Point, would be of interest particularly since as noted in a previous Heritage Assessment of the site (Service and Clifford 2017, 13) there is a Scheduled bowl barrow (1020159) on the shoulder of a spur above the Dart Valley, across Noss Creek, around 0.5km to the NNE (Fig 11). It is very likely that Noss Creek was used as a natural landing place in prehistory, and it is possible that the top of Higher Noss Point, above the monitoring site, also attracted Bronze Age activity as it overlooked both the side creek and the main estuary.

4.2 Late 19th century

Prior to the car park works, at the centre and east end of the south side of the area (where it had not been cut in the past to make the platforms of the now ruined historic buildings), the base of the north side of Higher Noss Point which rises to a height of around 8m retained its natural slope to the former shoreline. This was steep, c45° in places. Dead tree stumps on the base of the slope, several of which were removed in the course of regrading it, were quite large, and – like the surviving oaks, near the old shoreline south east of the monitoring site, and also higher up the slope – are likely to have been among the trees shown here on the OS map of 1894 (Figs 5, 12, 16 and 23).

The ruined building on the south east at location **5** is marked on the OS map of 1904 (Fig 6), and so would seem to date from the establishment of the shipyard at Noss Point by Simpson, Strickland and Co. of Dartmouth, in the last decade of the 19th century (Sharpe 2018; Appendix 1 in this report, 15). As the 1904 map shows, the rectangular building stands at the base of the north slope of the Point, its long axis running ENE-WSW, around 3m from the shore at the time it was built which lay just across a track (Fig 6).

A schematic shipyard plan of 1960 included in previous Heritage Statement report (Service and Clifford 2017, 20) appears to identify this building as a rivet store. The siting of the building, however, requiring levelling into bedrock, strongly suggests an original function more closely related to the working waterfront. It may have been a workshop with storage for boats or goods below.

The west end of the south wall, not being covered by an internal concrete wall which stands in front of most of it (see further below), shows several openings which may reflect something of the original use of the building, including one at the lower level (Figs 9 and 20). However, these were obscured by ivy and other dense vegetation, and this with the steepness of the slope behind meant they were not accessible for recording.

The interior of this building, the part affected by the car park works, measured 11.3m by c3.4m overall. Its full width is not certain as the north side of the floor with the north wall had been previously removed, although the full span of the flooring appeared to be present at the east end. The full length of the building includes its main part, 7.9m long, and an outshut at the east, indicated on the 1904 map (Fig 6) so probably original.

The south wall, with remains of a return on the west end of that, of laid rubble stone with lime mortar, survived (Fig 19). The height of the walling, around 3m, indicates the building had two storeys, the lower one, built into the steep slope on a rock cut platform, being at the level of the former shoreline with the reclaimed ground beyond it from which the site for the new car park was excavated. Parts of floors were revealed during the works. Debris dumped above them was excavated only in part (in the centre and towards the east end) during the monitoring, due to the presence of asbestos (101) (Fig 21).

The floor exposed in the main part of the building appeared to be associated with re-use probably dating from around the mid 20th century (Section 4.3). Where it was truncated on the north this appeared to be on top of natural rock, rather than an older one, so perhaps the main floor was simply rock cut.

The east end had flooring resembling lime ash, 106, and beyond that flooring of laid brick, 107 (Fig 22). The bedrock behind this was clearly all cut at one time, and the size of both these floors approximates to the size of the outshut shown on the 1904 map, so they probably reflect provision for different uses, one requiring the brick floor, perhaps a worker's privy and wash house. The lime ash floor had a slight mortar scar on part of its east side, 105, indicating a sub-dividing wall. The lime ash was laid up to the cut in the bedrock behind, which formed its back wall. The brick floor ended on the south in a rough strip of concrete with a runnel, 104, which may have been the base of a slight, boarded or corrugated iron lining wall against the rock cut.

A broken ridge tile was found in debris accumulated behind one of the tree stumps on the slope just to the west at location 6. The tile was red clay and was 32cm long and 28cm high overall, and had a ridge standing 15cm (6") high with four indentations 2.5cm apart, 5cm wide and 4cm deep (one of which was broken off) giving a decorative profile (Fig 24). This may suggest that the building at site 5 originally had a roof resembling that of the standing shipyard building further to the west, beyond the car park site, of roughly the same date (also shown on the 1904 map), which has similar tiles although with dark slip or glaze (Fig 25). Alternatively, the ridge tile may have been dumped down to this site from the top of the Point.

A large timber found in the later reclaimed ground on the outer, north part of the car park site (not during the archaeological monitoring) may be from a shipyard structure, potentially one of the Simpson and Strickland phase such as a crane marked at the west end of the Point on the 1904 map (Fig 6). The timber was 9.25m long and 0.4m square and had remains, and marks, of iron bolts and fittings (Fig 33).

A small, regular, ceramic cone, with thin brown glaze, concave base and slightly worn top, was uncovered during the grading of the slope just above site 7 (unstratified). This is unidentified but its general character may suggest it could date from around the later 19th century so it may be related to the earlier years of the shipyard (Figs 36 and 37).

4.3 Early 20th century

A building on the south west at site 7 does not appear on the map of 1904 (Fig 6). This, and the narrow stone walls with lime mortar of the apparently older, west part of it, would fit with its dating from after 1918 when the yard was run by Philip and Sons (Sharpe 2018, 15).

In the early 1920s business here was affected by a wider depression in maritime industry (*Western Morning News*, September 18th 1922, 4) and the modest character of the building may reflect that. It is not marked on the 1944 survey (Fig 7), but this may be because of the smaller scale of that map. The building like that at site 5 had previously been cut away on the north side and had dumping in its interior (Figs 26, 27 and 28).

Asbestos in the fill of the building (110), and in material tipped down the slope which had filled the rock cut behind (109), restricted excavation and close inspection. However, it could be seen that the building had two parts each c0.4m square internally but truncated on the north; the east one, with concrete walling and floor 111, was apparently built on to the west one made of rubble stone. Like that on the south west, the building here stood on a platform cut into the bedrock at the base of the slope of the Point, beside the shoreline of the time. The walls of both parts were narrow and the building was probably single storey. Given this and its position, it may have been a boathouse.

A narrow path, c1m wide, levelled into the slope, site 6, runs from the south east, in a straight line slanting across the contour, down the steep north side of Noss Point, heading to the location of building 7 (Fig 18). The eastern, secondary part of building 7 seems to have cut away the lower end of the path. This would have been a route to the former shoreline. It could have been made to access the earlier west part of the building here (and perhaps continued in use to access it, via steps that have been removed); alternatively, it could pre-date the building, but the good definition of the path makes it seem relatively recent so this is considered less likely.

4.4 Mid 20th century

The greater part of the south east building 5 had an internal shuttered concrete reinforcement to the south wall, which extended along the eastern 5.7m of the main part of the building (Fig 19). A uniform, slightly uneven and rather thin floor of poured concrete, 103, at a slightly higher level than the flooring at the east end attributed to an original outshut, extended over all the main part of the building. It had a row of sockets of for quite small timber uprights at the east end against the original outshut where there may have been a wall of corrugated iron or similar light material (Figs 9 and 22).

This indicates adaptation of the building, probably dating from the Second World War when the Noss yard was used to make and repair military vessels (Sharpe 2018, 16). D-Day landing craft maintenance sites with 'gridirons' of shuttered concrete are located on the east shore of the Dart to either side of Noss and are Scheduled Monuments (33059 and 1020912) (Service and Clifford 2017, 22).

The asbestos and other debris which had been redeposited in the past on the slope on the south of the car park site (109) probably came from other 20th century shipyard buildings above on top of Higher Noss Point. Some redeposited material from the shipyard was also noted at two points outside the monitoring area, south east of the car park works, at sites 2 and 3.

At site 2 a relatively recent access way for machinery to the silt storage area below (Fig 35) had cut a section through a disused vehicle track to the old shore line from above, exposing a deposit of small stone with debris at a depth of c0.4m including a teaspoon and small copper plates and copper boat nails (Figs 14 and 15).

From the exposure seen this material appeared to have been dumped to the side from the older track and may derive from the site of the complex of wartime buildings up the track on the top of the Point (Fig 18). It is of interest as a trace of the busy varied work of the shipyard, evoked by a record of 1940 acknowledging the 'coppersmiths, plumbers, joiners, fitters, electricians, painters, labourers and office workers' here who had contributed to the District's Spitfire fund (*Western Morning News* August 12th 1940, 4).

Closer to the car park works at site 3, where the natural gradient of the Point could be seen sloping down to the former shoreline, a beer bottle from Plymouth Brewery (which operated from the late 19th to later 20th century) probably also came from shipyard buildings upslope (Fig 17).

4.5 Later 20th century

The made ground at site 8 which extended over almost the whole new car park area is thought to date from the later 20th century. Pressure to expand the shipyard is recorded from around 1967 when an extension to 'Philip and Son's Noss Shipyard' was proposed (*Torbay Express and South Devon Echo* April 12th 1967, 5). Under surface gravel (112) this was mostly a deep pinkish very stony clay with some coal and waste cast iron (113), with other layers present in places (114) and (115), overlying the bedrock (116) (Figs 30-32 and 34).

5 References

5.1 Primary sources (in chronological order)

Tithe Map, 1838. Parish of Kingswear

Ordnance Survey, 1895. 25 Inch Map First Edition

Ordnance Survey, 1904. 25 Inch Map Second Edition

Ordnance Survey, 1944. 6 Inch Map

Ordnance Survey, MasterMap Topography

5.2 Publications

Service, M and Clifford, E, 2017, *Heritage Statement: Noss on Dart Marina, Devon*, AECOM project 60508152

Sharpe, A, 2018. *Noss on Dart Marina, Written Scheme of Investigation for archaeological watching brief*, Cornwall Archaeological Unit: Truro

5.3 Websites

British Newspaper Archive



Fig 4 Kingswear Tithe survey of 1838 showing the natural shoreline with no structures.

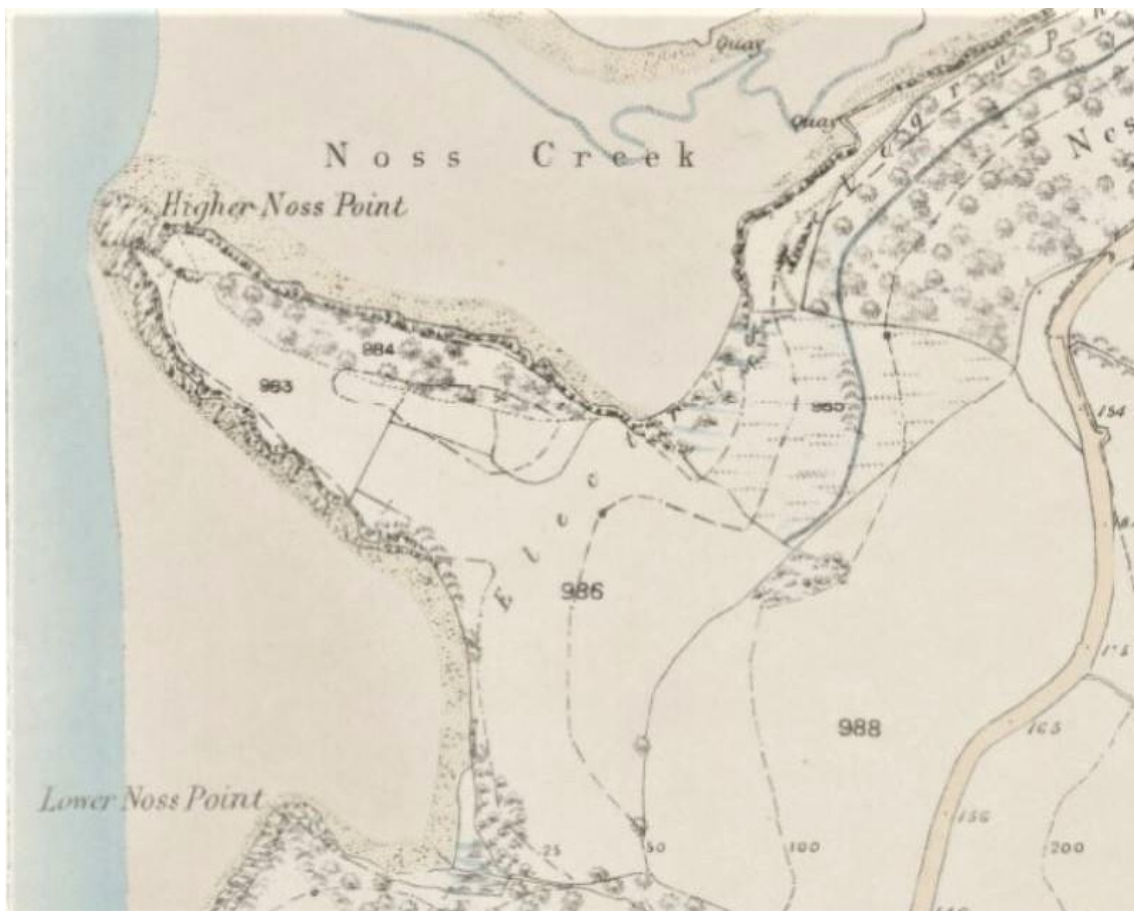


Fig 5 OS map of 1895 indicating Noss Point had changed little since 1838.

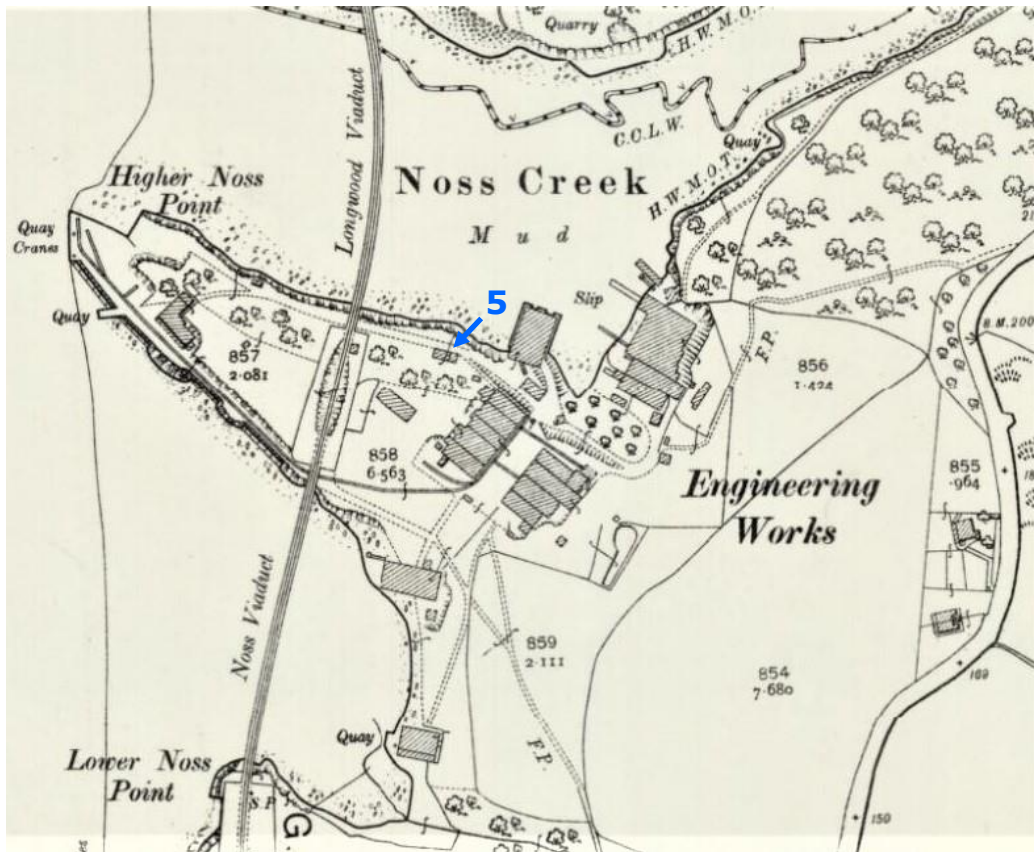


Fig 6 OS revision, 1904, recording shipyard layout, with south east building labelled.

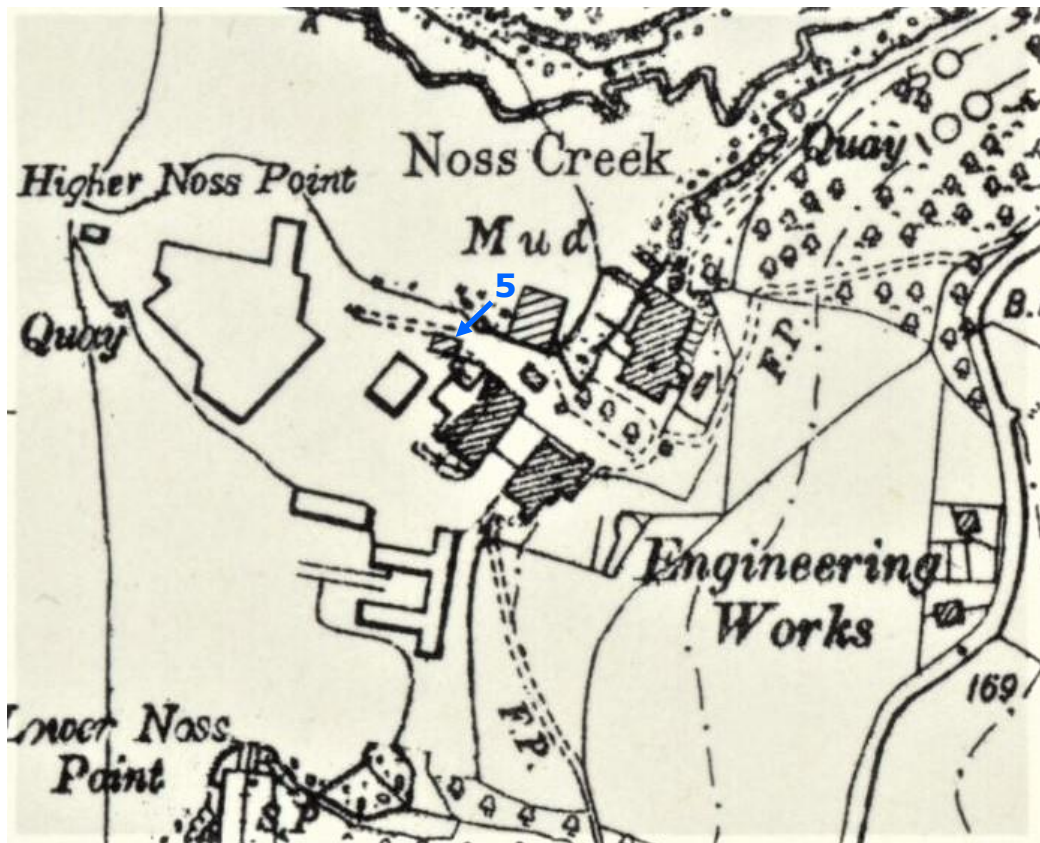


Fig 7 1944 OS map showing land reclaimed north west of monitoring area; south east building labelled.

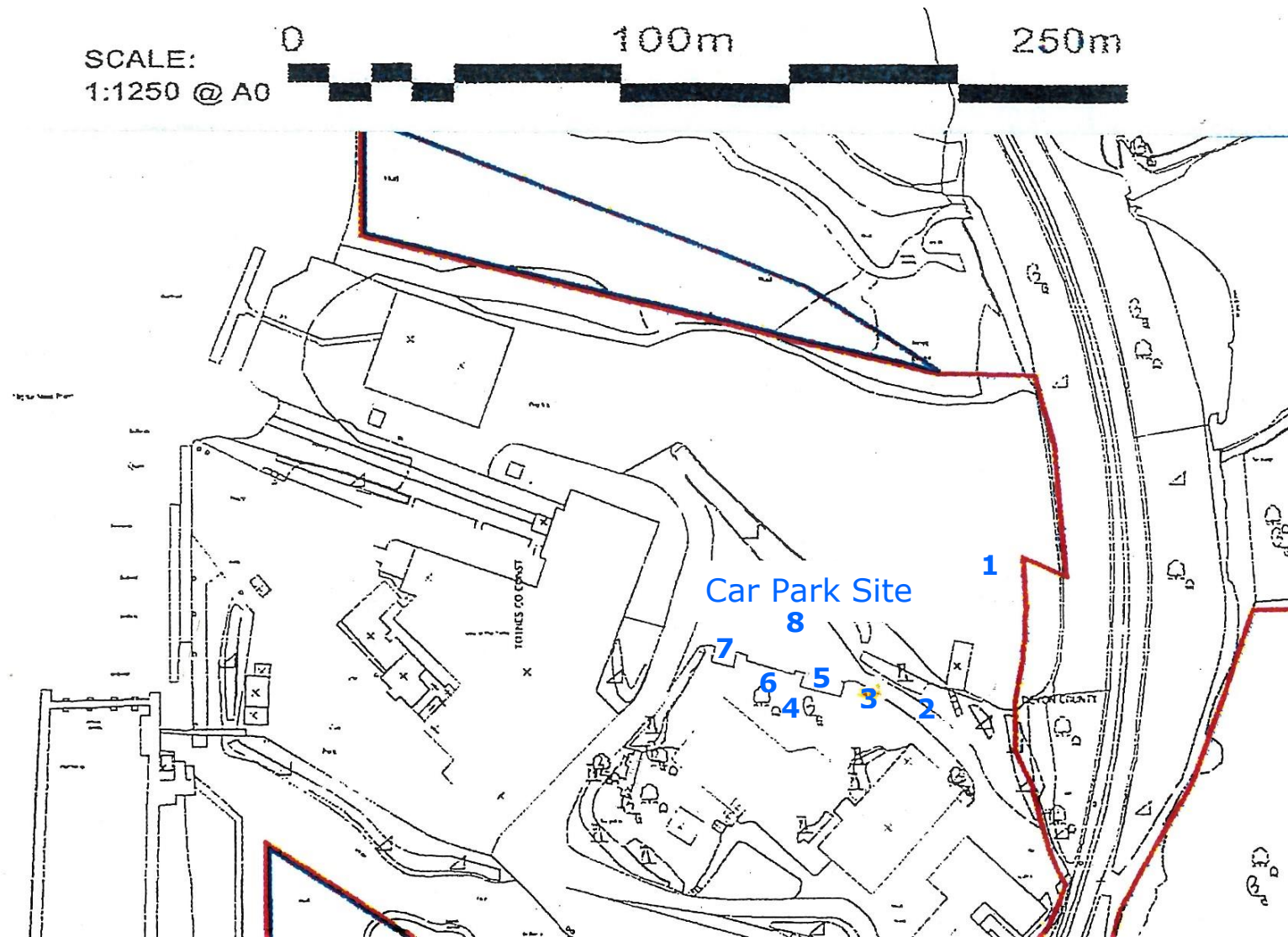


Fig 8 Map showing marina complex (prior to recent addition of silt stores), with, added in blue, numbers referring to sites mentioned in the report, in the car park area and in the vicinity.

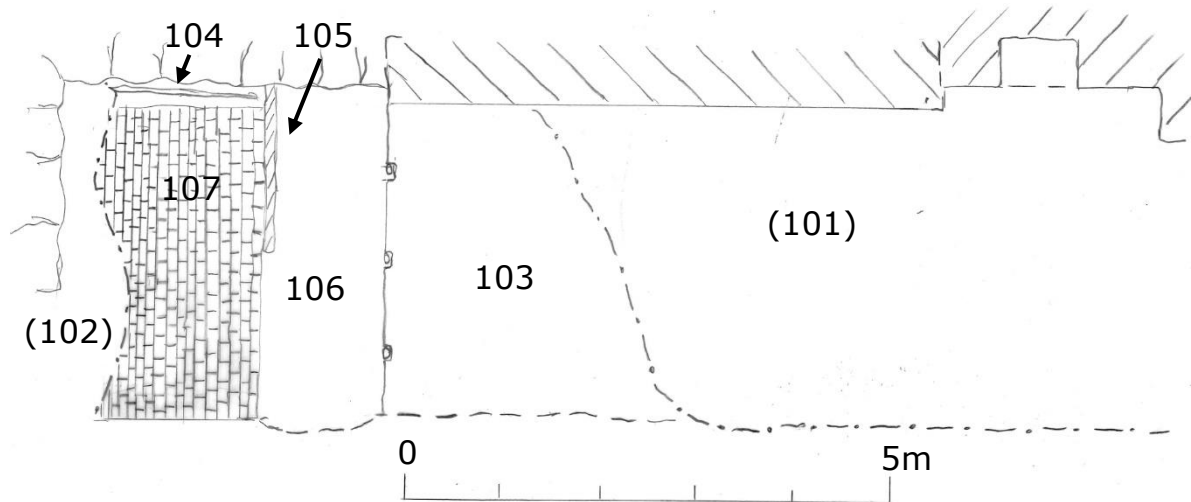


Fig 9 Schematic plan of exposed floors with context numbers (see Appendix 2) inside building at site 5 on south east of car park area.



Fig 10 Looking north west across area from Higher Noss Point during stripping of gravel surface (112); beyond are the River Dart (centre) and Noss Creek (right).



Fig 11 Looking north east during stripping of gravel (112), showing railway (formerly carried across Point and creeks), wooded spur with barrow to left, and hillfort right of centre. The large modern holders at the creek are stores for dredged silt.



Fig 12 Storage for silt from creek, with site above, looking south west. A flint core from the disturbed ground (front left of photo) may have come from the Point above.



*Fig 13 Large flint core, from site **1** near silt store in creek north east of car park site.*



Fig 14 South side of recent track to east side of silt store in creek (ESE of car park), cut through debris making up earlier track, at site 2; note spoon, right of 1m scale.



Fig 15 Spoon and small copper plates and nails in cut section of track at site 2, ESE of car park site (0.5m scale bar division).



Fig 16 Slope of Point reaching down to old shoreline on south east of area (2m scale).



Fig 17 Plymouth Breweries bottle ESE of car park area at site 3, part of a wide spread of material dumped from above extending from here across much of the north slope of the Point, looking north west.



Fig 18 Disused track running south east up slope of Point from old shoreline at site 4, passing above a ruined building on south east of car park site 5; the platform for the later ruined building on the south west of the car park site 7 cuts the lower end of the track (1m scale).



Fig 19 South east building at site 5 before works, looking south, showing rock cut on east (left), and overgrown concrete and stone rear wall (2m scale).



Fig 20 Possible opening and return wall in upper storey inside west end of building 5 on south east.



Fig 21 Building at site 5, looking east from centre prior to works, showing fill (101) (2m scale).



Fig 22 South east building 5, with floor features 103-107 partly exposed (1m scales). Removal of fill (101) and (102) was not all monitored as asbestos was present.



Fig 23 Grading the scarp on the south revealed several large tree stumps. Under topsoil much of the scarp was cloaked in debris tipped from above including asbestos.



Fig 24 Ridge tile from beside stump on scarp on south at site 6 (0.5m scale division).



Fig 25 Buildings west of car park site, recorded on the 1904 OS map, with ridge tiles.



Fig 26 South west building at site 7 at start of works. Of its two roughly equal-sized parts, the nearer one appears relatively recent with concrete walls and floor 111; the further part appears modern though primary with narrow stone walls (2m scale).



Fig 27 West part of south west building at site 7 at start of works with overgrown walling and mixed loose fill (110) which proved to contain asbestos (2m scale).



Fig 28 West part of south west building at site 7 during removal of its south wall where the building platform had been cut into the bedrock and the space between wall and cut later filled with debris dumped down the scarp including asbestos (2m scale).



Fig 29 Old railway cutting west of new car park area (right) with trees on the ridge above mapped in 1895 and possibly indicated also in 1838 (2m scale).



Fig 30 View from north west of south side of made ground stripped of gravel (112), showing infill (113), very stony clay with coal (2m scale).



Fig 31 South facing section exposed by test pit east of centre of car park area, with layers of very stony infill (113) and (115) deposited from the south side in the 20th century to reclaim the ground from the creek beyond (2m scale).



Fig 32 Stripping of modern fill on south east quarter of site in progress (looking north west). The base of the trench shows the thick stony coally pinkish layer (113), the most recent apart from the surface gravel, right; orangey clay (114), centre; and greyish stony layer (115), left; all spread successively into the creek (2m scale).



Fig 33 Large timber, possibly from crane, used to face modern creek infill (2m scale).



*Fig 34 Site after cutting into bedrock, looking east, showing infill (113) and clay (114), and, right, backs of buildings sites **5** and **7** by former shoreline (2m scale).*



Fig 35 Site looking south east from silt storage area beside creek below, at conclusion of monitoring (2m scale).



Fig 36 Ceramic cone uncovered by grading of slope behind Site 7 (unstratified).



Fig 37 Base of ceramic cone from grading of slope behind Site 7 (unstratified).

Appendix 1: Written Scheme of Investigation

Noss on Dart Marina redevelopment watching brief

Client: Premier Marinas (Dart) Ltd.
 Planning refs: 2161/17/OPA and 2161/17/FUL

Project background

Cornwall Archaeological Unit (CAU) was contacted by CRBE Ltd Environmental Consultancy on behalf of Premier Marinas Ltd in late May 2018 with a request for a Written Scheme of Investigation to cover a watching brief during elements of the redevelopment of the former Philip and Son's shipyard site at Higher Noss Point near Kingswear into a mixed development including the re-design and expansion of the existing marina and related facilities together with new residential development and the creation of parking facilities in several areas of the site.

The Noss on Dart Marina will occupy a site known as Higher Noss Point and is centred at OS NGR SX 88026 53033. It is located within the administrative boundary of South Hams District council and the parish of Kingswear, on the eastern side of the River Dart. The site location is shown in Figure 1.

The Noss on Dart Marina development as currently proposed will occupy an area of approximately 18.75 hectares in total, approximately 11 hectares of this being on land, the remainder lying within the marine environment of the Dart Estuary. The site is bounded by the A379 (Bridge Road) to the east and south and by the Dart Estuary to the west. The promontory is flanked to the north by Higher Noss Creek and to the south by South Creek (or Lower Noss Creek). The site slopes steeply from its eastern entrance off Bridge Road down to the riverbank and is bisected from north to south by the Dart Valley Railway heritage line running between Paignton and Kingswear.

The surrounding area is characterised by dispersed domestic properties set within a rural landscape; the settlement of Kingswear is 1.5km to the south, Hillhead is 2k to the north-east and the nearest part of Dartmouth is 600m to the south-west on the opposite side of the Dart Estuary. The National Trust property of Greenaway House and its Registered Park and Garden are 1.3km to the north.

This document sets out a Written Scheme of Investigation (WSI) by Cornwall Archaeological Unit (CAU) for a programme of archaeological investigation and recording of sub-surface archaeology at Higher Noss Point during its re-development. This WSI complements a separate WSI submitted by AECOM covering the recording of the built heritage on the site

The archaeological advisor to the Local Planning Authority (LPA) has commented on the proposals and requested the production of this WSI. His advice regarding the watching brief was:

- *'Provision for archaeological monitoring of groundworks (watching brief), particularly since the site has been 'developed over the past 200 years' and groundworks have the potential to expose evidence associated with the development of the site and will provide context and additional information relevant to the historic building recording. This need not consist of a constant presence on site by the site archaeologist and attendance would depend upon the results of ongoing groundworks and tailored to those results during the course of construction works.'*
- *'In addition, any works on the foreshore will need archaeological motoring for the recovery of artefacts too.'*
- *'Archaeological monitoring of the 'hillside houses'.*

- 'The watching brief would only need to be undertaken in areas where information may be obtained on (i) the historic development of the marina site and (ii) the site of the dwellings.'
- 'The watching brief will be tailored to ground conditions, if the site appears to have been disturbed then the watching brief will be curtailed as appropriate.'
- 'There is prehistoric activity in the wider landscape, including a nationally important Iron Age hillfort and Bronze Age funerary monument. The greenfield site has the potential to evidence of prehistoric activity so a watching brief would be required here, but again curtailed if little or no archaeology was exposed or the site was demonstrated to have low archaeological potential.'
- Supplementary advice indicates that there is no requirement for archaeological recording to be undertaken in areas where the development will be piled, or in those where the development will be on ground built up above existing levels.

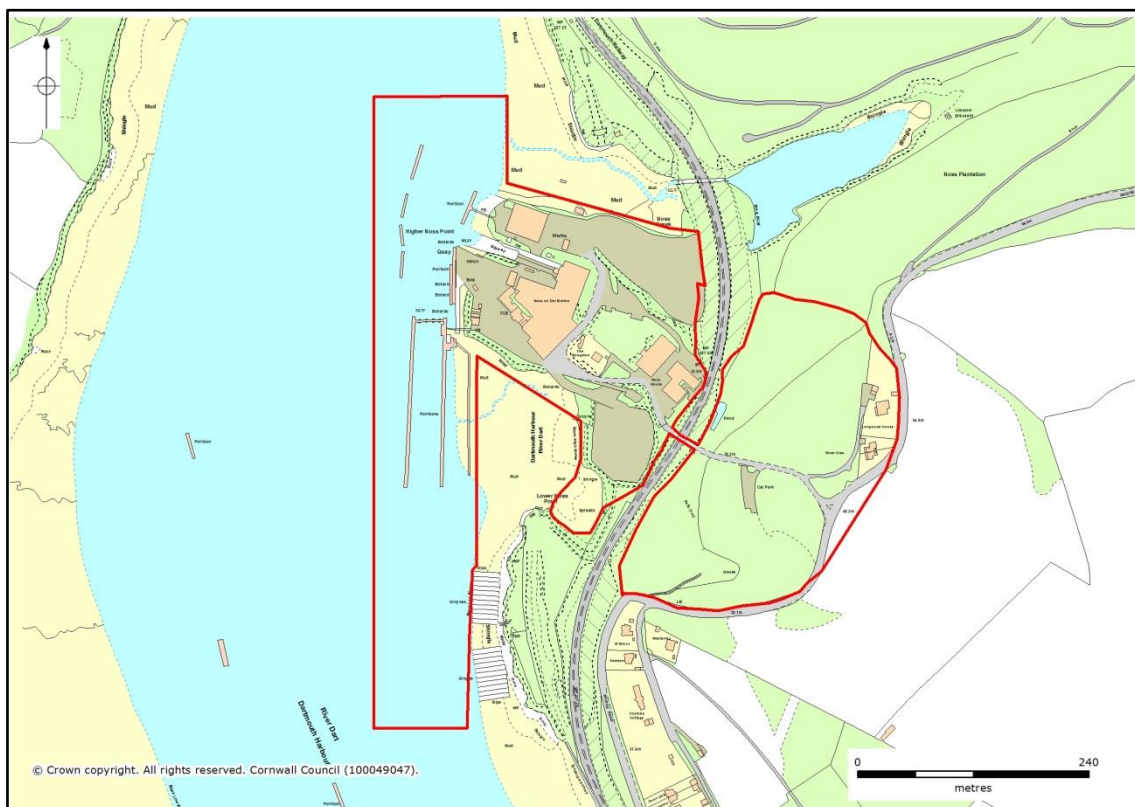


Figure 1: The extent of the application area at Higher Noss Point (redline).

Site history

The area under investigation was the subject of a Cultural Heritage Desk Based Assessment, this being produced in 2017 by AECOM. This, together with further web-and map-based research undertaken by CAU in May 2018 has informed the rest of this section.

In 1891, Simpson, Strickland and Co. of Dartmouth, manufacturers of fast steam launches at their Sandways Yard at Dartmouth, established in 1858, built a shipyard at Higher Noss Point, at that time an undeveloped promontory on the eastern side of the Dart to the north of Kingswear. In 1918, the yard was taken over by Philip and Sons, a company who at that time specialised in the construction of tug boats. The yard in 1918 extended out to the shoreline of the original promontory, and was bisected by the Paignton to Kingswear Branch of the Great Western Railway, this running across the creeks to the north and south on timber viaducts (Longwood Viaduct and Noss Viaduct), and through the site itself on a low embankment. The presence of the railway line clearly

constrained the development of the shipyard, which by the 1920s was producing coastal tankers, ferries and excursion boats as well as tugs, and in or around 1923 the railway line was diverted inland along the course it still follows and the viaducts were demolished. A branch of the railway led into the shipyard, where there were several spurs serving parts of the site. The diversion of this section of the railway line freed up land for the expansion of the shipyard, and a plan produced in 1938 shows a major programme of building took place, as well as the partial infill of Higher Noss Creek to site substantial new slipways and wet docks.

During World War II the yard was turned over to the manufacture and repair of small warships including minesweepers, air-sea-rescue launches, boom-defence vessels, fleet water carriers, minelayers and naval armament boats. In common with other land along the Dart, part of the site was given over to the maintenance of landing craft for the D-Day invasion of Normandy. A war memorial stone was erected on the quayside adjacent to the southern boatyard in 2010 in memory of those lost during an enemy bombing raid on the yard on 18 September 1942.

Post-war, Philip and Son continued to expand, producing coasters, tankers, ferries, tugs and both cargo and passenger ships, the number of buildings on the site further expanding, reaching a high point in the late 1960s when very little of the point remained undeveloped. Shipbuilding ceased in 1974, the yard concentrating on ship maintenance and marine engineering work, but it closed in 1999. The site has since been operated as a marina. Most of the area of the wet docks was infilled to site new buildings, whilst the Philip and Son shipyard buildings became increasingly derelict, though remained prominent and imposing features from the estuary.

Known archaeological sites

The AECOM assessment identified ten potential sub-surface archaeological sites from map analysis (see Fig 2), these being:

- A1. The remains of an air raid shelter.
- A2. The site of a possible WW2 light anti-aircraft position.
- A3. The site of a Simpson, Strickland and Co boatshed.
- A4. Sites of early 20th century shipyard buildings.
- A5. The site of the original GWR embankment.
- A6. The site of a further Simson Strickland and Co building.
- A7. The site of a further light anti-aircraft battery.
- A8. The site of WW2 military earthworks.
- A9. A further Simpson Strickland and Co building.
- A10. The site of allotment gardens in use during the 1950s.

Potential archaeological sites

Map regression undertaken by CAU during the production of this WSI has shown the potential for other shipyard-related sites to fall within the development boundary, particularly in the central and southern parts of Higher Noss Point.

The archaeological advisor to the LPA has (above) highlighted the potential of the foreshore area, as well as that of the inland area zoned for new housing and for car-parking facilities.

Project extent

The project extent is as shown on Figure 1 in this WSI. Particular attention will be targeted on groundwork activities undertaken within the footprint of the promontory during the early decades of the 20th century, as areas on the northern and southern parts of what

now constitutes Higher Noss Point consist of made ground emplaced from 1923 to the present day. This new land primarily sited the slipways added during the 1920s and some of the open ground behind the expanded quay frontages. A second area of particular focus will be the car-parking and new residential development sites in the area to the east of the Dart Valley Railway line, and the third will consist of those areas of the foreshore where development might reveal artefacts or sites, or which might prove suitable for paleo-archaeological sampling.

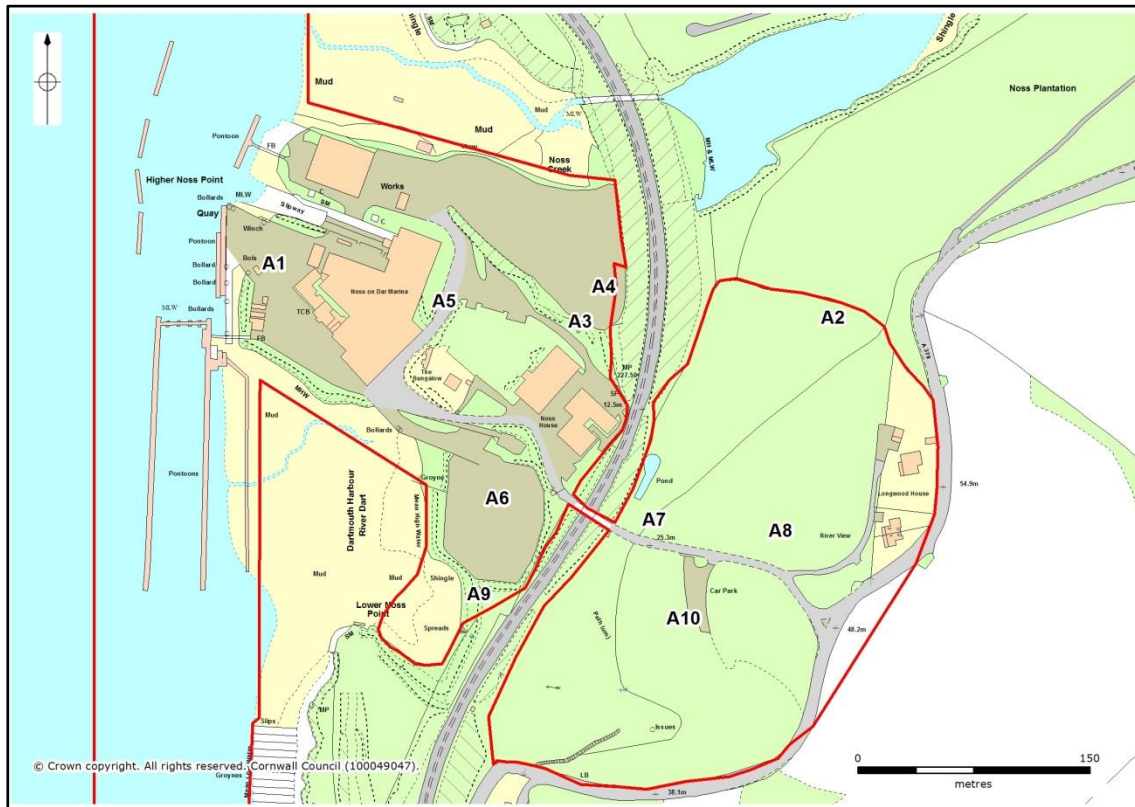


Fig 2. The 'A' sites identified by AECOM in 2017.

Aims and objectives

The principal aim of the study is to gain a better understanding of the archaeology of the development area during its re-development, in particular:

- Aspects of the development and operation of the shipyards sited here from the late 19th century;
- Pre-19th century activities on Higher Noss Point;
- Prehistoric or later activities in the inland part of the development area.

The objectives are to:

- Obtain an archaeological record of the site during its development;
- To produce a report detailing the findings of the recording exercise;
- To produce an entry to the Historic England/ADS online OASIS national database of archaeological projects;
- To produce an ordered archive for deposition at an appropriate repository.

Working methods

All recording work will be undertaken according to the Chartered Institute for Archaeologists (CIfA) guidance (CIfA 2014a, 2014b, 2014c, 2017). Staff will follow the CIfA *Code of Conduct* (2014d). The Chartered Institute for Archaeologists is the professional body for archaeologists working in the UK.

Creation of the physical and digital archive

Following review with the CAU Project Manager the results from the fieldwork will be collated as an archive.

This will involve the following.

- All finds, etc., will be washed, catalogued, and stored in a proper manner (being clearly labelled and marked and stored according to CAU guidelines).
- All records (drawings, context sheets, photographs, etc.) will be ordered, catalogued and stored in an appropriate manner (according to CAU guidelines).
- Selected colour digital images taken as part of the site archive will be deposited with the Archaeology Data Service (ADS).
- Completion of the Historic England/ADS OASIS online archive index.
- All correspondence relating to the project, the WSI, copies of site plans and drawings and a copy of the report will be uploaded to the ADS in digital formats.

Archive deposition

An index to the site archive will be created and the archive contents prepared for long term storage, in accordance with CAU standards.

- In the event that artefacts are recovered which are to be retained, the material archive will be deposited at Plymouth City Museum together with that resulting from the AECOM HBR. An accession number will be obtained for this element of the archiving once CAU have been commissioned to undertake the watching brief.
- Digital data (CAU report, digital photographs, scanned project documentation, etc.) of the site archive will be deposited with the ADS.

CAU uses the following file formats for stored digital data:

DOCX	Word processed documents
XLSX	Spreadsheets
PDF	Exports of completed documents/reports/graphics
JPG	Site graphics and scanned information
DNG or TIF	Digital photographs
DWG	AutoCAD drawings, measured surveys
MXD	ArcView GIS (electronic mapping) data
AI	Adobe Illustrator graphics

Pre-fieldwork

In advance of the fieldwork CAU, will discuss and agree with the client:

- Working methods and programme.
- Health and Safety issues and requirements.
- Transfer of Title for artefacts.
- Obtaining an accession number from the appropriate archive repository.

Desk-based assessment

A desk-based assessment was carried out by AECOM in 2017 (Service and Clifford 2017). Some additional map regression was carried out by CAU in May 2018 to clarify the locations of potential sites within the development area.

Fieldwork: watching brief

The client has advised that an intermittent, targeted watching brief will be required on the site during groundworks. This work will be guided by CifA's guidance on undertaking watching briefs (CifA 2014b).

The site divides into four broad areas:

- The original footprint of the shipyard during the late C19th and early C20th. This area has the potential to include the remains of now-demolished shipyard buildings and features, some of which potentially underlie buildings standing in 2018 but due for demolition.
- The 1923-99 areas of the shipyard which were constructed on made ground into the adjoining creeks and estuary. This area has a relatively low potential for the survival of significant archaeology.
- The foreshore to the south of Higher Noss Point which is proposed for waterside housing, and which has not previously been developed. This area may contain evidence for undocumented foreshore features.
- The former woodland area to the east of the railway line which is proposed for residential housing and car-parking and which has been identified as having the potential for the survival of evidence for prehistoric and later activities.

The developer should give CAU adequate advance notice of their intention to undertake groundworks on areas of the site. All groundworks which might potentially contain archaeological features should, wherever possible, be undertaken under archaeological supervision. This will include significant ground lowering activities across the site, the excavation footing or service trenches, and other activities which would result in intrusion below present site levels. All soil stripping should be undertaken by a machine equipped with a toothless grading bucket where possible. Should archaeological features be revealed, mechanical excavation should be temporarily halted to allow the exposed features to be cleaned up by hand to determine their significance prior to either their recording or further mechanical excavation. The developer should allow reasonable time for the excavation and recording of any features thus revealed. Should a temporary stop of work be required the site archaeologist will request this via the developer and the County Historic Environment Team.

Areas will be monitored for the presence/absence of sub-surface archaeological features during initial stripping activities; where it seems probable that areas have been very significantly disturbed in the past, contain no archaeological features or only features of negligible significance, or where the ways in which groundworks are being undertaken preclude detailed recording, a decision will be taken as to whether to abandon the watching brief within that area or to record features using alternative methodologies.

Areas of the development sited on piling and those areas of the site which are to be built up above current ground levels will not be the subject of the watching brief.

If complex and/or significant archaeological deposits are encountered then the archaeological requirements will be reviewed by the client, the CHET, and CAU. **In the event that significant remains cannot be preserved *in situ* then full-scale excavation may subsequently be required.** A contingency should be allowed by the client to record any significant archaeological remains uncovered during the groundworks. The significance of the remains will be agreed between the client, the CHET and CAU.

Recording

During the archaeological recording the archaeologist will:

- Identify and record any archaeological features that are revealed; the level of recording will be appropriate to the character/importance of the archaeological remains.
- Site drawings (plans and sections) will be made by pencil (4H) on drafting film; all drawings will include standard information: site details, personnel, date, scale and north point.
- All features and finds will be accurately located at an appropriate scale following CAU and CIfA guidelines.
- All archaeological contexts will be described to a standard format linked to a continuous numbering sequence.
- Photographic recording will comprise high resolution (greater than 10Mpx) digital photography; CAU will follow Historic England (2015) guidance on digital image capture and storage. Photographs will include a record of significant features and general working shots. A metric scale, site and context identifier and a north arrow, where appropriate, will be included in all archive record shots.

Treatment of human remains

- If human remains are discovered within an archaeological context on the site the client, the County Historic Environment Team (CHET), and Public Health, Devon County Council will be informed.
- Any human remains should only be excavated and removed if it is considered that they will contribute towards further scientific understanding.
- A coroner's license must be obtained from the Ministry of Justice before any remains are disturbed.
- Any consents or licenses required will be obtained on behalf of the client by CAU
- If human remains are uncovered which require excavation, they will be excavated with due reverence. The site will be adequately screened from public view. Once excavated, human remains must not be exposed to public view. If human remains are not to be removed their physical security will be ensured, by backfilling as soon as possible after recording.

Treatment of finds

The fieldwork is likely to produce artefactual material. The following recording and retention policies will be followed:

- In the event that objects containing precious metal(s) are encountered, the coroner will be informed as per the provisions of the Treasure Act 1996.
- Significant finds in stratified contexts will be plotted on a scaled base plan or with a Leica GPS unit and recorded as small finds.
- All finds will be collected in sealable plastic bags which will be labelled immediately with the site code, the context number or other identifier, the type of material, and the finder's initials. The only exception to this policy will be that large assemblages of modern (post-1800) material may be representatively sampled.
- Modern (post-1800) finds may be disposed of at the cataloguing stage. This process will be reviewed and agreed ahead of its implementation.

Treatment of samples

The fieldwork may produce environmental samples. The following collection, recording and processing policies will be followed:

- Sealed/undisturbed archaeological contexts in the form of buried soils, layers or deposits within significant archaeological features that have the potential to

contain palaeoenvironmental evidence and/or material suitable for scientific dating will be sampled.

- Where bulk samples are taken a minimum of 40 litres will be sampled from these deposits where feasible.
- In the event that significant organic remains are encountered, advice will be sought from the Historic England Regional Advisor for Archaeological Science.
- All samples will be described to a standard format linked to a continuous numbering sequence.
- Bulk samples will be processed using flotation with appropriate mesh sizes.

Reporting

The results from the project will be drawn together and presented in a series of concise reports, each covering a discrete phase of the development. The scope of the reports will be dependent on the scale and significance of the results from the project.

In the case of negative results the findings will be presented in a CAU short report format. In the case of limited results the findings will be presented in a concise archive report. Which type of report is most appropriate will be agreed by CAU and the CHET at the conclusion of each fieldwork stage.

In the case of significant and/or extensive results a post excavation assessment report will be produced in accordance with Cifa's guidelines for post-excavation assessment (2014c). This will include a summary of the site archive and work carried out for assessment, a discussion of the potential of the data, and an updated project design (UPD) setting out proposals for analysis and publication.

The reports will include the following elements:

- Summary
- Project background
- Aims and objectives
- Methodology
- Location and setting
- Site history
- Archaeological results
- Chronology/dating evidence
- Conclusions
- References
- Project archive index
- Supporting illustrations: location map, historic maps, plans, elevations/sections, photographs

Timetable

The study is anticipated to commence during 2018, though will be undertaken in several phases, possibly over several years; the demolition of existing structures and the redevelopment of the marina, its associated infrastructure and the construction of the new carpark to the east of the railway will be undertaken in the first phase, possibly together with the construction of the hotel. Detailed proposals for the redevelopment of areas of the wider site for new housing have yet to be developed and submitted for full planning.

CAU will require at least 2 weeks' notice before commencement of work, in order to allocate field staff and arrange other logistics.

The archive reports will be completed within 3 months of the end of each phase of the fieldwork. The deposition of the archive will be completed within 3 months of the completion of the final archive report.

Monitoring and Signing Off Condition

Monitoring of the project will be carried out by the County Historic Environment Team (CHET). Where the CHET is satisfied with the archive report and the deposition of the archive, written discharge of any relevant planning condition will be expected. It is anticipated that separate reports will be produced for each phase of the development.

- The CHET will monitor the work and should be kept regularly informed of progress.
- Notification of the start of work shall be given preferably in writing to the CHET at least one week in advance of its commencement.
- Any variations to the WSI will be agreed with the CHET, in writing, prior to them being carried out.
- If significant detail is discovered, all works must cease and a meeting convened with the client and the CHET to discuss the most appropriate way forward.

Monitoring points during the study will include:

- Approval of the WSI
- Completion of fieldwork
- Completion of archive report
- Deposition of the archive

References

CIfA, 2014a. *Standard and guidance for archaeological field evaluation*, CIfA, Reading

CIfA, 2014b. *Standard and guidance for an archaeological watching brief*, CIfA, Reading

CIfA, 2014c. *Standard and guidance for archaeological excavation*, CIfA, Reading

CIfA, 2014d. *Code of Conduct*, CIfA, Reading

CIfA, 2017. *Standard and guidance for historic environment desk-based assessment*, CIfA, Reading

Historic England 2015. *Guidance note on Digital Image Capture and File Storage*, Historic England, Swindon

Service, M. and Clifford, E. 2017, *Heritage Statement: Noss on Dart Marina, Devon*, AECOM project 60508152

Appendix 2: Table of contexts

Area and ref. no. on plan, Fig 8	Context Number	Type	Description	Finds indicating date
Building on south east, 5	(101)	Deposit	Dark/mid brown soil, not compact, with many small stones and some larger rubble stone, pieces of branches and roots, some metal, plastic and asbestos lying at mixed angles. Varying depth, 0.2m to 0.5m. Deeper towards rear (south) side of building.	Later C20 metal and plastic.
	(102)	Deposit	Dark brown soft humic silt, few small stones, up to c0.1m deep, on floor 103.	
	103	Build	Concrete poured slab 7.9m east-west by up to 3.5m (north side broken away), c10cm thick. Along east side at intervals of c0.8m (where concrete adjoins floor 103) 3 small rectangular holes (each c13cm north-south by 8cm) left by decayed inbuilt timber uprights.	
	104	Build	Concrete strip along south side of brick floor, 2.14m long, c25cm wide, with irregular runnel 7cm wide and 2cm deep made roughly along its centre.	
	105	Build	Mortar scar, possibly lime based, 1.65m long, 13cm-15cm wide, at south end of east side of lime ash floor.	
	106	Build	West part (1.22m across) of floor extending 3.36m east-west by 3.35m (north edge broken away). Lime ash c8cm-10cm thick (with some sizeable rubble stones in its base).	
	107	Build	East part (eastern 2.14m) of floor, extending 3.36m east-west by 3.35m (north edge broken away). Bricks laid in rows north-south (each c22cm by 8cm and 10cm deep).	
Slope of Point on south, 6	(108)	Deposit	Dark brown friable silty soil up to c0.5m deep. with vegetation cover including grass, bracken and hazel under canopy of large oak trees.	Later C20 plastic, glass.
	(109)	Deposit	Mid brown and greyish silty clay with much stone, some iron, plastic and asbestos, angles showing tipping from south. Widespread across slope on south, up to c0.7m deep.	Later C20 plastic.
Building on south west, 7	(110)	Deposit	Mid brown soil, loose, with rubble stone and asbestos lying at mixed angles. Possibly up to c0.4m deep; removal not fully monitored due to asbestos.	Later C20 plastic.
	111	Build	Concrete floor, poured slab c4m square, in secondary east half of building.	
Made ground in former creek, 8	(112)	Deposit	Gravel, small stones, layer only 5cm thick.	
	(113)	Deposit	Very stony clay, varying brown, red and grey, generally pink, with patches of coal. Thickness 0.6m-1.3m, thicker towards the creek on the north, in area monitored.	
	(114)	Deposit	Orangey brown silty clay, subsoil, c0.5m thick, clean and uniform, apparently redeposited.	
	(115)	Deposit	Greyish brown loose rock, in clayey matrix, resembling redeposited bedrock, 0.5m deep, present in places.	
	(116)	Deposit	Natural bedrock, sloping down from old shoreline on south of car park site at c40°. At end of monitoring c1.5m thickness of rock exposed on north (continues down).	

Cornwall Archaeological Unit

Fal Building, County Hall, Treyew Road, Truro,
Cornwall
TR1 3AY



(01872) 323603
enquiries@cau.org.uk
www.cau.org.uk

