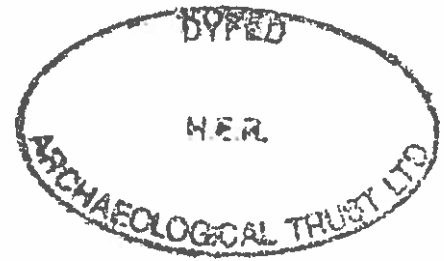


MARCH 2004



CARMARTHENSHIRE DOCK LLANELLI

ARCHAEOLOGICAL DESK-BASED ASSESSMENT



Report No. 2004/32

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CAMBRIA ARCHAEOLOGY

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CARMARTHENSHIRE DOCK, LLANELLI
ARCHAEOLOGICAL DESK-BASED ASSESSMENT

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By

Robert Evans

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THE CARMARTHENSHIRE DOCK, LLANELLI ARCHAEOLOGICAL DESK-BASED ASSESSMENT

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SUMMARY

Proposals are currently being developed to enhance the Carmarthenshire Dock area of Llanelli. This assessment was commissioned to provide the archaeological and historical context for the final design plans and to guide the philosophy behind them.

The Carmarthenshire Dock began life as a shipping place, before Alexander Raby established a quay on the site in the later 18th century, although the visible elements today date from the early to mid 19th century, and it was one of the first purpose built shipping places in the town. It represents the very beginning of Llanelli's industrial expansion and it was from small docks and quays like the Carmarthenshire Dock that Llanelli's coal and metal processing industries reached world eminence.

The Carmarthenshire Dock is the only surviving dock from the early period of industrial development and it is essential that its importance in the history of the town is highlighted within any proposals.

Whatever the final plans remedial works will be required on the dock structures, which is a Listed Building, and a programme of further archaeological works has been devised. The installation of interpretative material outlining the development of the dock and the industrial history of the area is envisaged. It is hoped that in the future the dock can be incorporated into some form of heritage trail, which could also include the nearby North Dock, the pump house and Old Castle Works buildings.

ACKNOWLEDGEMENTS

This report was prepared by R T J Evans, Cambria Archaeology Field Operations. The author is grateful to the staff at Carmarthenshire County Record Office, Carmarthen, and Llanelli Public Library for providing valuable assistance. David McLees, Cadw Historic Buildings Inspector for Carmarthenshire is also thanked for his advice and encouragement.

1. INTRODUCTION

1.1 PROJECT PROPOSALS AND COMMISSION

Proposals were sought to enhance the Carmarthenshire Dock area of Llanelli as part of the continuing regeneration of the town's coastline, through the development of the Millennium Coastal Park. The Carmarthenshire Dock is one the earliest and one of the few remaining industrial sites in the docks area of Llanelli, and as such its importance has been a central strand of the enhancement proposals. Quadrant Consulting invited Cambria Archaeology to be part of their consultancy team and this assessment was carried out in March 2004.

1.2 SCOPE OF THE PROJECT

The scope of this assessment was to define the surviving components of the Carmarthenshire Dock and to identify areas that may contain further archaeological structures and deposits, such as Raby's Quay, the forerunner to the Carmarthenshire Dock. It was also intended to provide advice on the archaeological implications of the enhancement works and to guide the overall design philosophy.

1.3 REPORT OUTLINE

This report describes the physical environment of the study area (Section 2) before summarising the archaeological resource (Section 3) and recommendations based on the results of Sections 2 and 3 are given in Section 4. Detailed supporting data are presented in a series of appendices.

1.4 ABBREVIATIONS USED IN THIS REPORT

All sites recorded on the county Sites and Monuments Record (SMR) are identified by their Primary Record Number (PRN) and located by their National Grid Reference (NGR). References to primary cartographic and documentary evidence and published sources are given in brackets, and full details are included in the sources.

2. THE STUDY AREA

The study area is located within the town of Llanelli, southeast Carmarthenshire on the northwestern edge of the settlement bordering the shallows of Cefn Padrig and the Burry Inlet. The present landscape around the Carmarthenshire Dock is a result of both natural and human actions. It has resulted in sea defences, drained marshes and silted up harbours (Page 1997). Prior to the 19th century the area around Carmarthenshire Dock formed part of the intertidal zone at the mouth of the Afon Lliedi. The foreshore at the time lay approximately along the eastern bank of the present new cut made for the Lliedi in 1845 (Symons 1979). The area surrounding the dock includes reclaimed land, formerly intertidal mudflats and saltings to the east and west of the former course of the Afon Lleidi as it approached the area of mudflats known as the Llanelli flats at the west end of Cefn Padrig Bay, north of Machynys.

From the mediaeval period onwards coal shaped the physical and social development of the Llanelli region. The presence of the anthracite coalfield and the ready access to the sea made Llanelli the ideal location for industry, and the town expanded dramatically in the 18th and 19th century as new investors and new businesses were attracted into the region. The Carmarthenshire Dock was originally constructed to enable export of coal and iron products and for import of iron ore (Craig *et al* 2002, 553) from this rapidly expanding industrial region.

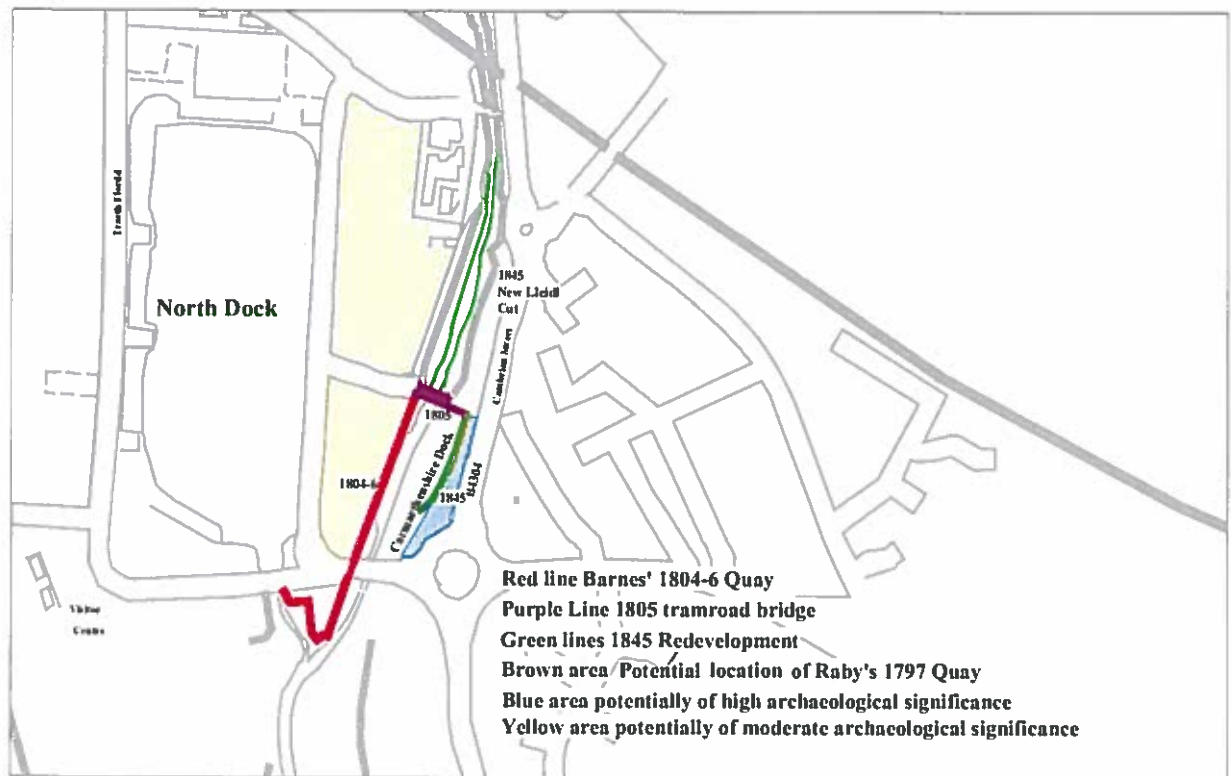


Figure 1: location plan showing main phases of development.

3. SUMMARY OF THE ARCHAEOLOGICAL RESOURCE

A number of references are made in the Dyfed Sites and Monuments record to historic features in the Area of Carmarthenshire Dock. There are also three listed buildings within the study area, which are described first, one nearby which is listed next, followed by the other noted sites of interest, whether extant or not. A table containing all the PRNs in the area of interest is appended to the end of this section. There are no scheduled ancient monuments noted within the study area.

Listed buildings within study area:

Carmarthenshire Dock (PRNs 4654, 37024)

East Quay (PRN 4654), Listed Building Grade II (CADW rec. No: 18043), which was originally constructed 1797-8 on the Llanelli Flats, close to Roderick, Bowen and Griffith's Dock. Construction details are unknown, but it was sited at the eastern quay of the later tidal Carmarthenshire Dock (PRN 37024). The shipping place was probably operational from 1799 and was served by an early rail system from Castell-y-Garreg (PRN 30741). The quay was altered in 1845 to build a slipway (PRN 8427). The quay is constructed of coursed rubble sandstone with large sandstone copings and runs straight for c.120m. The wall is approximately 6m high from the current silt level in the Afon Lleidi at its northern end, and, after a short level section, slopes steeply to form the slipway. The quay has been raised above most of the slipway in concrete, but the original wall is clearly visible.

West Quay (PRN 37024), Listed Building Grade II (CADW record no.18042), which was constructed between 1804 and 1806 to complete a tidal dock with Raby's Quay. The engineer was James Barnes. The remains comprise a well-constructed stone quay of dressed sandstone, carefully coursed, with large sandstone copings. The quay is straight and level from its northern end at the former tramroad bridge and extends some 170m roughly southwards. It is crossed at its southern end by a modern road bridge. The wall is approximately 6m high from the current silt level in the Afon Lleidi and is slightly battered to the base. It is thought that the quay wall is tied to a concealed stone dock floor.

Bridge crossing northern end of Carmarthenshire Dock (PRN 37016) Listed Building Grade II (CADW record no.18044). Built circa 1805, attributed to James Barnes, and originally designed to carry the Carmarthenshire Railroad. Later it carried a branch of the Llanelli and Mynydd Mawr railway; this is shown on early OS maps. The structure is a well-constructed single brick-arched bridge, stone built of dressed masonry brought to course.

Listed Building adjacent to study area:

North Dock Engine House and Accumulator Tower (PRN 8760). Listed Grade II (Cadw record no.24/A/61 (1)). Engineers Sir Alexander Rendel and Partners. Date of 1900 noted on accumulator tower. To the right of the tower is a centre shed with coped gable. The west shed projects to the right and has a coped shouldered north gable and a big cambered arched entry, now blocked. The east shed, behind the tower, has coped gables with ashlar voussoirs. The east shed is said to have been the engine house, the centre shed the boiler house, and the west shed the maintenance shed.

Features noted on the SMR within Carmarthenshire Dock area:

Raby's Shipping place (PRN 4654) Earliest evidence for tidal dock. This is now obscured by Barnes' later development of the dock between 1804 to 1806, and not currently visible. It may however survive under the post 1845 East quay and slipway.

Breakwater, embankment to the south of the Carmarthenshire Dock (PRN 34010) Shown on Lt. Col. Colby's map of 1830, and on tithe map of 1842. Built by 1815 to enclose the Flats Harbour and the Carmarthenshire Dock. It was extended in about 1860.

Jobbings Warf (PRN 8427) Destroyed. Built in 1845 by the shipbuilder to raise large vessels. The incline of the wharf can be seen in the surviving wall of the east quay. The area has now been built up to dock level with concrete.

Carmarthenshire Tramroad (PRN 30865) Railway, commenced 1802, connecting Carmarthenshire Dock to coal mines. Earthwork removed.

Thomas Bowen's Shipping Place (PRN 37019) This place is recorded as having been a shipping place on the Afon Lleidi in 1754. It was probably sited on what is now the north dock.

Complete list of PRN numbers for the Carmarthenshire Dock study area and in the surrounding area:

4652	LLANELLI NORTH DOCK	SS49809960	DOCK
4653	LLANELLI	SS49959983	POWER STATION
4654	RABY'S SHIPPING PLACE; CARMARTHENSHIRE DOCK	SS49979950	DOCK
4665	LLANELLI	SS50039974	BRIDGE
8427	JOBBS WHARF	SS49979943	WHARF
8449	PATENT SLIP	SS49959947	SLIPWAY
8760	NORTH DOCK ENGINE HOUSE	SS49999974	ENGINE HOUSE
8761	LLANELLI	SS49899944	RAILWAY SIGNAL BOX
8763	NORTH DOCK SWING BRIDGE	SS49879943	BRIDGE
8971	DOLPHIN THE	SS49899940	WRECK
16152		SS50089970	CHAPEL
30736	GENERAL WARDE'S RAILROAD	SS500999	TRAMWAY
34039	THE FLATS	SS49869944	SCOURING RESERVOIR
34044	NORTH DOCK	SS49809989	RESERVOIR

37012	NORTH DOCK	SS50009987	BRIDGE
37014	NORTH DOCK GOODS SHEDS	SS49969956	GOODS SHED
37015	NORTH DOCK ENTRANCE	SS49879940	GATE
37016	NORTH DOCK	SS49989957	BRIDGE
37018	NORTH DOCK RAILWAY SIDING	SS49689972	RAILWAY SIDING
37019	NORTH DOCK THOMAS BOWEN SHIPPING PLACE	SS49859970	FEATURE
37020	NORTH DOCK COAL PIT	SS499996	MINE
37021	NORTH DOCK	SS500997	MINE
37022	NORTH DOCK	SS500998	PIT
37023	NORTH DOCK	SS500998	PIT
37024	NORTH DOCK	SS49939948	QUAY
37025	NORTH DOCK	SS50019982	BRIDGE
37026	OLD CASTLE CROSSING SIGNAL BOX	SS50019959	RAILWAY SIGNAL BOX
37027	OLD CASTLE CROSSING	SS50039980	LEVEL CROSSING
37028	NORTH DOCK HARBOUR OFFICE	SS50029965	OFFICE
37029	NORTH DOCK NEW HARBOUR OFFICE	SS50059961	OFFICE
37030	CAMBRIAN STREET LIME KILN	SS50069968	LIME KILN
37031	CARMARTHENSHIRE DOCK SMITHY	SS50009955	BLACKSMITHS WORKSHOP
37032	BRYNN BACHE COAL MINE	SS501998	MINE
37033	OLD WATER WHEEL PIT	SS500997	WATER WHEEL
42684	NORTH DOCK	SS499996	DESK BASED ASSESSMENT

Site Visit

A site visit was carried out on 27th February 2004 when the surviving features of the dock were examined. No new previously unidentified sites were noted during the visit. The west quay shows considerable evidence of the 1804 to 1806 rebuild of Raby's quay (PRN 4654), no evidence of the latter being visible. The coursed ashlar blocks (Plate 1) seem to be of this early phase, but there appear to be many patches of infilling (Plate 2). The ramp at the southern end of this dock is probably a replacement for the steps seen on the 1811 plan (CRO Castell Gorfod Maps 1).

The areas to the west of the dock itself have been much altered over the years. It now consists of partly cleared and landscaped industrial land. It is possible that footings of early structures might be discovered in these areas and it would be necessary to be aware of these in any new work contemplated

The tramroad bridge was built in about 1805 towards the north end of the dock, and was probably contemporaneous with west quay, with which it shares similar well-

dressed ashlar masonry. There is no evidence of surviving parapet, although it is believed that there was originally an ornamental metal railing, but no trace of this is in evidence today. It was difficult to examine this at close range from the north owing to its being blocked off and covered in scaffolding (Plate 3), but the parapet appears to show evidence of an early railing. The bridge is more clearly visible from the south, but a more recent railing has partially survived there (Plate 6).

The angle of a slipway, built in 1845, is clearly visible in the east quay, having been built up with later concrete at its southern end (Plate 4). This slipway is clearly seen in a 1891 photograph of the paddle steamer 'Tiger' with two un-named vessels being repaired on the slipway (Llanelli Library photographic collection). The whole of this quay almost certainly dates from the 1845 rebuilding by the Harbour Commissioners (CRO HT 531). It is also possible that evidence for Alexander Raby's quay (PRN 4654) might be found at the northern end of this quay, although it was impossible to detect anything under the later build-up of material during the site visit.

The slipway was later built up to dock level with concrete, and it is unlikely that much of archaeological interest remains in this area above ground. The area to the north of the dock shows the canalised channel (Plate 5) of the Afon Lleidi, which was diverted, through the dock between 1839-1845. The listed Accumulator tower and engine sheds (Plate 7) form an important historical focus for this area.



Plate 1



PLATE 2



PLATE 3

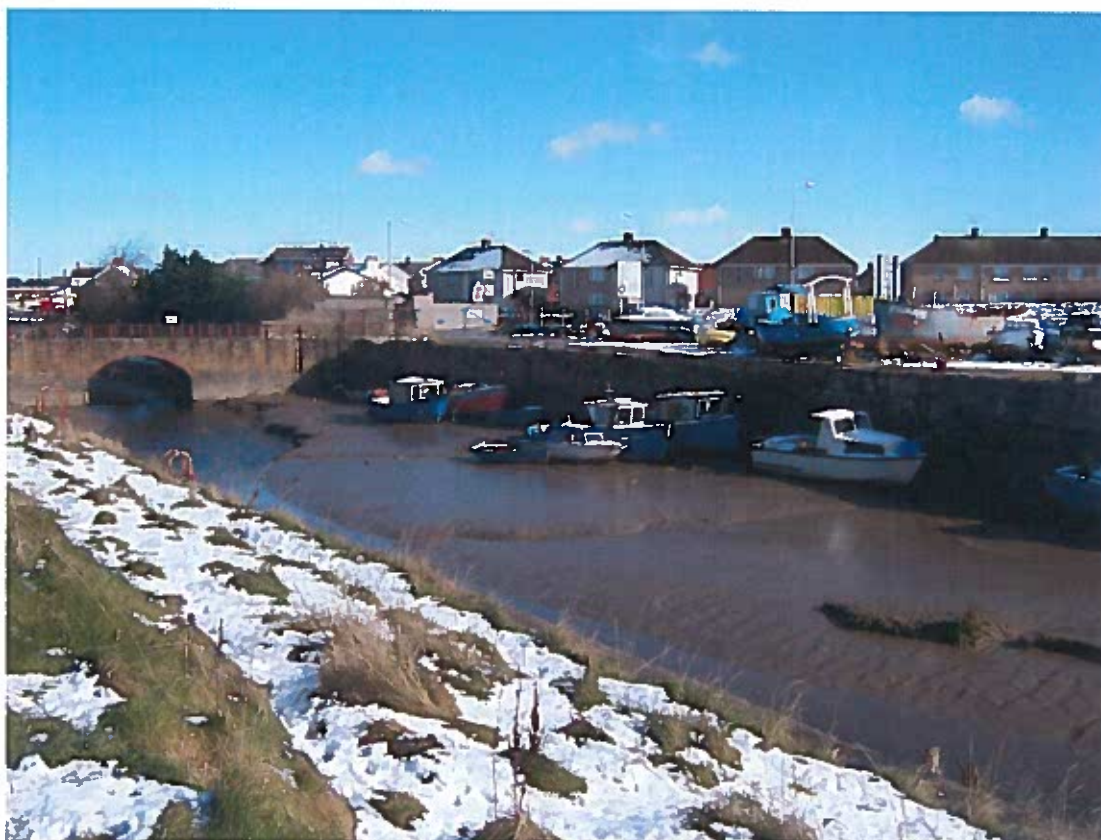


PLATE 4



PLATE 5

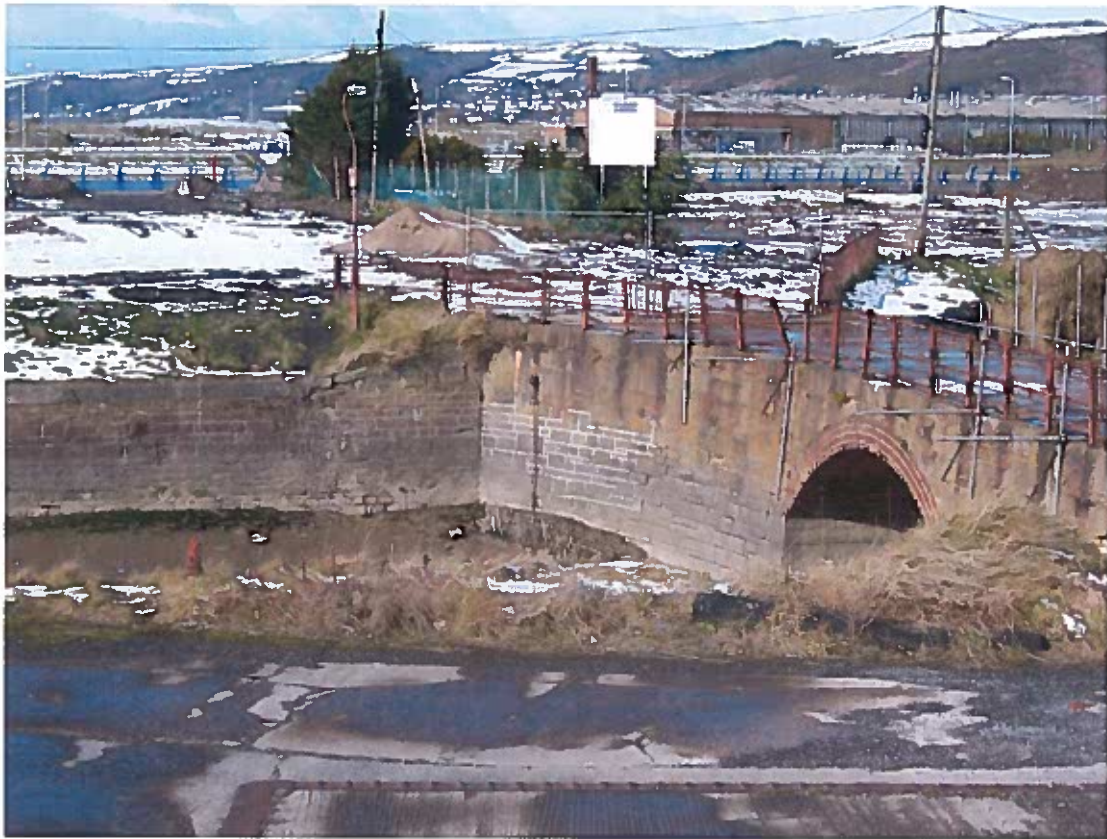


PLATE 6



PLATE 7

5. RECOMMENDATIONS

- 5.1 The East and West Quays (PRN 4654, 37024) show considerable evidence of rebuilding and reconstruction. It would therefore be advisable before any work is carried out to stabilise these that a rectified photograph survey of the dock and bridges take place.
 - 5.1.1 Drawn plans and sections showing phasing (as much as possible), based on physical survey and historic records would be advisable. These are Grade II listed structures and permission from Carmarthenshire County Council Planning Department would have to be obtained for any work. There must also be a presumption to preserve these sites *in situ*.
- 5.2 The tramroad bridge (PRN 37016) is listed Grade II and should be preserved *in situ*. If it is desired to use this bridge for access would be necessary to seek archaeological or architectural advice as to what design any new protective barriers should take.
- 5.3 It would be advisable for an investigation of the base of the walls in a number of places, based on the phasing to take place.
 - 5.3.1 It would be valuable to know deep the dock walls are, and if there are there any foundations. It has been suggested that there may have been a pitched stone base to the dock, and it should be possible to examine whether this was the case. This would be necessary before any dredging took place. Augering should enable it to be established whether there was a consistent surface or not.
- 5.4 Some evidence of shipbuilding and ship repair activity during the later part of the nineteenth century might be evidenced, through loose finds in its silt.
 - 5.4.1. A sampling strategy might be required were dredging of the channel to take place, in order to take account of this evidence.
- 5.5 In the area to the west of the West Quay an evaluation with trial trenching might be advisable in order to see whether any evidence of early industrial structures survive, and also other dockside structures. It is possible that the following interests; Pits (PRN 37022, PRN 37023) may be located in this area.
- 5.6 It is unlikely that much of archaeological interest survives to the east of the East Quay towards the southern end where the slipway was built up to dock level with concrete, but towards the northern end it is possible that there may be surviving evidence of shipbuilding and repair facilities, also it is possible that remains of Alexander Raby's quay (PRN 4654) may survive within this area behind the 1845 dock and slipway. Trial trenching would therefore be advisable. A smithy (PRN 37031) and blacksmiths shops are noted on the OS maps of 1907 and 1916 as being located at the northern end of the East Quay. These could be dealt with under watching brief conditions if not located during trial trenching.

APPENDIX ONE: HISTORY OF THE SITE

Prior to 1797 and the construction of the Carmarthenshire Dock, the study area formed part of the inter tidal zone at the mouth of the Afon Lleidi. The earliest evidence for coal working date to the latter part of the 16th century, and in the 18th century, under the Mansells of Stradey, the Vaughans of Golden Grove and the Stepney family, the industrialization of the area developed considerably (Symons 1979). Various figures were instrumental in the practical side of this industrialisation, including John Owen and Thomas Bowen, who were both active in the area under study. Early maps, such as William Jones' *'Directions for ships to come in safe into Burry and to the Several Places of Safety to be within the same'* shows shipping places at Dafen Pill, Spitty, Pencoed and Loughor. It did not show any structures associated with these places, nor did it show any docks in the vicinity of the later Llanelli Docks, although they are thought to be associated with Thomas Bowen's activities (Symonds 1979:242-243; plate 36: Page 1997:18). A common means of loading coal into ships at Llanelli was to beach them on mudflats if small, or to use barges to ferry out coal to larger vessels anchored off-shore (Price 1992:11). It is the industrial developments, and the need to provide more convenient methods of organising maritime transport that gave impetus to the need to develop improved shipping facilities in the form of wharves and docks.

In 1797 Alexander Raby began the construction of a small dock associated with a railroad leading to it, completing the work by 1799. This was known initially as the 'Squires' dock, but came to be called the Carmarthenshire Dock. In 1802 an Act of Parliament sanctioned a tramroad from Llanelli flats to Castell-y-Garreg, through the purchase and re-use of Raby's system. The Carmarthenshire railway used a 4-foot gauge and the line was horse drawn over its twelve mile length. The engineer James Barnes was responsible for this railway, and for the reconstruction of the Carmarthenshire Dock. The dock was a masonry tidal basin with a pitched floor, and was accompanied by an associated embankment or breakwater extending seawards to the south giving some protection from the prevailing winds, the action of tides, and to afford some protection to the vessels moored there. By Jan 1805 over £26,640 had been spent on the Carmarthenshire Railroad which led to the dock from Raby's iron furnace at Cwmddyche to the north-east, but work on the terminus was incomplete, and in November it was reported that "the jetty head required repair...which is now broke" (Craig *et al.* 2002:484). The Carmarthenshire Railway Company enlarged the dock in 1806 by building a 155 yards long western wall (Symons 1979:245). John Wedge's *Plan of the Burry Estuary*, dating to 1806-7 shows the Carmarthenshire Railroad leading to the recently built docks (Symons 1979:246; CRO Castell Gorfod, Maps 2). There are suggestions that a second dock was contemplated at this time, but no work on it was carried out. A plan of the dock dated 1811, by John Howell (CRO Castell Gorfod, Maps 1) shows the east and west piers of the dock at that time, along with the Carmarthenshire Railroad. It refers to an area of wharf being leased to a Mr. Child, but also notes the presence of the Ship Public House, a carpenters shop and two houses on the approach road. The impression is given of a small tidal dock.

An Act of Parliament was passed to improve navigation to the Carmarthenshire Dock in July 1813 including the provision of a breakwater. By March 1815 the breakwater had been completed, and this reduced the risk of storm damage to the docks, railways

and embankments such as had happened in a violent storm of October 1812 (Symons *ibid*, Burgess Book, Llanelli Library Archive). In 1824 a plan drawn by Joseph Foss Dessiou, *Llanelly Harbour and Docks*, is the first to clearly show the location of Carmarthenshire Dock (called *Company's Dock*) in relation to its immediate surroundings; at this time there were two docks to the south, the earlier Mr. Pemberton's Dock and Mr Nevill's Floating Dock, the latter built to serve the nearby Copper works built in 1806 (Craig *et al.* 2002: 485).

The tithe Map of 1842 shows little detail of the area, with the tidal mudflats being crown land and therefore not subject to tithe. The tramways and the Copperworks to the south are clearly visible however. A plan of proposed improvements to the Llanelli Dock generally was drawn in 1842 by Edward Bagot (CRO Stepney P535) that clearly shows the Carmarthenshire Dock, the railroad leading to it, and also the original course of the Afon Lleidi to the north. It also clearly shows that the Railway Company still owned the dock at that time. In the middle of the 1840s Carmarthenshire Dock was taken over by the Barry Harbour Commissioners, for the sum of £1,500 (CRO HT 530; Craig *et al.* 2002: 503). In the years preceding this event, some coaling appliances had been erected on the dockside, but no major works were carried out which would have increased the commercial usefulness of the dock. There was probably little revenue available for such a task. The dock seems by this time to have been mainly used as an adjunct to the adjacent shipbuilding and repair facilities. Traffic had become much impeded by the accumulation of sand, silt and mud, and between c.1839 and 1845 the Lleidi River was diverted from its natural meandering course to pass through the head of the dock in order to try to reduce the effects of silting. A contract for repairs to the dock and altering the east wall was awarded in 1845 (CRO HT 551), with which a full specification of work was included. This was almost certainly part of the larger programme of works that included the river diversion and schedule of works to improve navigation to the dock area generally, and to provide slipways to the boat repair yards. A plan produced at this time (CRO Stepney P117) shows the Carmarthenshire Dock prior to the reconstruction of the east wall, but with the new 1839-45 cut for the Afon Lleidi.

There had probably been shipbuilding in the dock area in the early part of the 19th century, where Brabyn is thought to have built vessels. In 1845 and 1846 E.W. Jobling acquired land from the Burry Harbour Commissioners and built a shipyard and slipway and erected buildings alongside the Carmarthenshire Dock. Considerable sums of money were spent to make the shipyard and slipway, installing a cradle for shipbuilding and repair with a capacity of 500 tons, and steam power capable of hauling vessels above the high-tide line. The shipping works were advertised for sale in the *Shipping Gazette* in December 1847, although it is known that they were not sold at this time and Jobling continued to run the works (Craig *et al.* 2002). A pair of limekilns, owned by Rees Jenkins of Station Road, was built near the dock in the 1850s, but had gone out of use by the 1870s (Craig *et al.* 2002:343). A plan of 1864 (CRO Stepney 410) shows the new slipway, described as the *Patent Slip*, but not the limekilns. This slipway was probably the one leased to John Mansfield (CRO HT 493).

The elaborate network of canals, tramroads and railways which had developed across south-east Carmarthenshire from the latter part of the 18th century onwards enabled substantial exports by sea from the various Llanelli Docks, and the status of the

Carmarthenshire Dock remained whilst it was a key outlet in this integrated system. Various maps and plans (CRO Stepney P116, P117, P410) clearly show this network in the dock region. During the mid 19th century however the South Wales Railway and its Swansea branch gave access to the larger and better-equipped Swansea Docks (Sambrook and James 1995: 26), and the importance of the Carmarthenshire Dock inevitably declined. It is clear that as well as because of improved access to Swansea, trade was being lost owing to the fact that the dock could not accommodate larger vessels. By the 1870s a number of timber yards, saw mills, joinery works and general builders yards had sprung up in areas adjacent to the dock, the most well known of which was Williams, Rees and Company, although most of them were owned by partnerships and small contractors.

In an attempt to counter some of these problems an area immediately adjacent to the Carmarthenshire Dock to the west was chosen for the construction of a deep-water dock (CRO Stepney P116). Construction began in 1898 and was completed in 1903, when the new dock, known as the North dock (PRN 4652), opened. Between 1904 and 1947 nine million tons of exports left the North Dock, and that dock closed to commercial shipping on 20th January 1951 (Carmarthenshire County Council 2002:16), although the dock continued to be used unofficially for some years after that.

In the 1960s and 1970s sand barges used berths in the old Carmarthenshire dock. In the year to the end of May 1970 they made 539 trips and discharged 104,680 tons of sand for the two companies who were operating them.

More recently Carmarthenshire County Council initiated a regeneration project in the North Dock area following the production of a report in connection with the redevelopment of that area (Carmarthenshire County Council 2002).

APPENDIX TWO: SOURCES

PRIMARY DOCUMENTS

*Joseph Foss Dessiou 1824. *Survey of Llanelly Harbour and Docks* (in Craig *et al.* 2002:485)

Tithe Map and Apportionment for the Parish of Llanelly (Dyfed SMR, held by Cambria Archaeology)

Ordnance Survey 1813 Surveyors Drawing Sheet 188 (Dyfed SMR, held by Archaeology Cambria Archaeology)

Ordnance Survey 1st Edition Map 1891 (Dyfed SMR, held by Cambria Archaeology)

Ordnance Survey 2nd Edition Map Sheet LVIII:6 (6inch) 1907 (Dyfed SMR, held by Cambria Archaeology)

Ordnance Survey 3rd Edition Map Sheet LVIII:6 (25 inch) 1916 (Dyfed SMR, held by Cambria Archaeology)

The following sources from Carmarthenshire Record Office (CRO) were consulted. All those deemed to be relevant were consulted, but there is a certain amount of repetition. Those marked with an asterisk are included, or referred to directly, in this report.

Stepney Estate Papers:

P15 Plan of the sea-shore, Llanelly and Pembrey, made by T. Sopwith by order of HM Commissioners of woods and forest 1845- Same as P117

*P116 Plan and book of reference of Llanelli Harbour Scheme, pursuant to the Harbour Act 1896

*P117 Same as P15

P260 Same as P116

*P410 Plans and Sections, Llanelly Harbour, proposed docks and branch railways 1864

P487 Same as P116

P488 Same as P117

*P535 Plan and sections of proposed improvements at Llanelli Harbour, by Edward Bagot C.E. Key; landowners included, 4inch: 1 mile 1842

P540 Marine Chart of "Haigh's scheme", probably at New Dock, Llanelli (2) 20th century

P541 Mr. Cyril Jones' scheme for Llanelli Harbour improvement 1908

P542 Survey of North Dock entrance, Llanelli Harbour 20th century

P543 Plan of Llanelli Harbour 1905 scheme

P544 Survey of Burry Inlet by Captain Jarrad 6 inch: 1 mile with an enlargement at 12 inches. Oct 1902

Cawdor Estate Papers:

2. Map of channel from Carmarthen Bay to Loughor showing Pembrey Harbour and Llanelly Docks, 2inches: 1 mile

75 Chart of Burry Bar and Harbour, by John Wedge. 1808

Castell Gorfod Estate Documents:

*Maps1 Plan of a wharf at Llanelly Dock, surveyed by John Howell Esq. 1811

*Maps2 Chart of Burry Harbour and Bar 1808, by John Wedge. Same as Cawdor 75

Llanelli Harbour Board Papers (Carmarthenshire Dock related papers only):

HT 81 Rental Correspondence concerning Carmarthenshire Dock

*HT 493 Lease of Land at Carmarthenshire Dock for patent slip to John Mansfield

HT 529 Lease of Carmarthenshire Dock Basin 1851

*HT 530 Conveyance from Carmarthenshire Railway Company to the commissioners of the Bury navigation of Carmarthenshire Dock 1840's

*HT 531 Contract between the commissioners, for repairs and altering the east wall of Carmarthenshire Dock 1845, with specification for all the work to be carried out on Carmarthenshire Dock

Other Archive Sources

Ground Photographs from the Llanelli Library Collection:

(No catalogue details available)

Paddle Steamer 'Tiger' in Carmarthenshire Dock, with two vessels on slipways behind under repair. View facing east. Dated 1891.

Ship under repair in Carmarthenshire Dock. Date unknown but probably late nineteenth century. Facing northeast

View of Afon Lleidi from northern end of Carmarthenshire Dock, showing accumulator tower and sheds (listed grade II)

Llanelli Library Archive

Burgess Book of the Town of Llanelli 1808-1840

UNPUBLISHED SOURCES

Page N 1997 *The Llanelli and Loughor Wetlands: Archaeological Assessment*.
Unpublished Cambria Archaeology Report

Roberts R 1999 *North Dock, Llanelli, Carmarthenshire. Cultural Heritage*
Archaeological Assessment. Unpublished GGAT Report no. 99/004.

Sambrook P 1995 *The South East Dyfed Anthracite Coalfield*. Dyfed
James H Archaeological Trust Unpublished Report

PUBLISHED SOURCES

Carmarthenshire 2002 *North Dock Llanelli. Environmental Statement and Technical*
County Council *Appendices*. Unpublished Report

Craig R 2002 *The Industrial and Maritime History of Llanelli*
Protheroe-Jones R *and Burry Port 1750 to 2000*. (Carmarthen)
& Symonds, M .

Hughes, G. 1984. *A Llanelli Chronicle* (Llanelli)

Lewis, S. 1833. *Topographical Dictionary of Wales* Vol.1

Price, M.R.C. 1992. *Llanelli & Mynydd Mawr Railway* (Oxford)

Symons M 1979 *Coal Mining in the Llanelli Area, Vol 1, 16th Century to 1829*
(Llanelli)

CARMARTHENSHIRE DOCK, LLANELLI
ARCHAEOLOGICAL DESK-BASED ASSESSMENT

REPORT NUMBER 2004/32

MARCH 2004

This report has been prepared by Robert Evans

Position Archaeologist

Signature Date

This report has been checked and approved by Ken Murphy on behalf of Cambria Archaeology,
Dyfed Archaeological Trust Ltd.

Position Principal Archaeological Officer, Field Operations

Signature Date.....

As part of our desire to provide a quality service we would welcome any comments you may have
on the content or presentation of this report