



FERRY TERMINAL, PIERHEAD

**Liverpool,
Merseyside**

Archaeological Evaluation Report

Oxford Archaeology North



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SUMMARY

A programme of archaeological works was required by the Merseyside Archaeologist in advance of the construction of the proposed new Pierhead Terminal Building, Liverpool (centred at NGR SJ 3381 9018), within the city centre of Liverpool (centred at NGR SJ 3403 9008). The work was commissioned and facilitated by Interior Services Group PLC, and was undertaken in September 2007 over a two week period by staff from OA North.

The main aims of the work were to establish the presence or absence of archaeological remains within the identified area and to determine the extent, condition, nature, character, quality and date of any archaeological remains present. It was envisaged that one long evaluation trench would satisfy these aims; however, the constraints of the ground conditions meant that in the event that the entire footprint of the new build was opened up.

The evaluation demonstrated that the development area contained the surviving remains of George's Ferry Basin, built around 1770, and George's Baths, built in 1828. The Ferry Basin was identified as a substantial sandstone wall, aligned approximately east / west at the northern end of the area, which appeared to correlate with the southern wall of the Ferry Basin. At the southern end of the excavated area a substantial brick wall was exposed, aligned east / west, and is most probably the northern side of the former George's Baths as depicted on early Ordnance Survey mapping.

Three other features were also identified in the works, including a large curved sandstone and iron structure which was the foundation for the bridging to a ferry landing stage that extended to the west. A section of a brick culvert was also uncovered, as was a second substantial brick wall, parallel to, and north of, the probable George's Baths foundation. This second wall may also be related to the Baths or may be part of a later large subterranean tank-like structure, that was known to have been built in this locale.

Following on from the evaluation, the developer adjusted the proposed pile foundation plan so that the piles would, as far as possible, avoid the key archaeological features. On this basis the Merseyside Archaeologist agreed that the foundations should be able to proceed without further recording in this area.

The southernmost part of the site, previously occupied by the Shanghai Palace restaurant and which probably has buried further remains of George's Baths, has yet to be investigated. The restaurant has now been demolished and the area is scheduled for landscaping which will potentially have an impact on the underlying archaeological remains. Based on the archaeological remains revealed in the northern part of the site it is recommended that a programme of further archaeological evaluation be carried out on the southern unexcavated area.

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Oxford Archaeology North (OA North) wish to thank Interior Services Group (ISG) PLC for commissioning the project and to Fred Bryant (ISG) in particular for help during the fieldwork. We would also like to thank Sarah-Jane Farr, the Merseyside Archaeological Officer, for providing information at short notice and support throughout the excavation.

The evaluation and excavation work was undertaken by Pascal Eloy with the assistance of Vix Hughes. The report was compiled by Pascal Eloy and Vix Hughes; and the drawings were produced by Anne Stewardson. The finds report was compiled by Chris Howard-Davis. The report was edited by Jamie Quartermaine, who was also responsible for overall project management.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 Interior Services Group PLC (ISG) requested that Oxford Archaeology North (OA North) undertake an archaeological evaluation in advance of the proposed redevelopment of the Pierhead Ferry Terminal, within the city centre of Liverpool (centred at NGR SJ 3381 9018, Fig 1). A project design for the evaluation (*Appendix 1*) was formulated to meet the requirements of the Merseyside Archaeologist. The area of works lies near the centre of Liverpool and is within the extent of the Maritime Mercantile City of Liverpool World Heritage Site, more specifically within the area defined as Area 1 Pier Head, which includes the Three Graces. The Maritime Mercantile City of Liverpool was granted World Heritage Site status (WHS) in 2004, and within the WHS area the buried archaeological deposits are regarded as '*a nationally significant resource*', which is '*highly fragile and vulnerable to damage and destruction*' (LCC 2003).
- 1.1.2 The primary aims of the evaluation were to determine the extent, condition, nature, character, quality and date of any archaeological remains present. In particular, it was to establish if there was any survival of George's Ferry Basin and / or Georges' Baths, depicted in this area on early Ordnance Survey mapping.
- 1.1.3 The area has been the subject of a series of desk-based assessments, which have identified the existence of the Liverpool Old Dock (MacLeod 1982; Philpott 1999). Excavation work in the general area has been ongoing since 2001 in relation to the Old Dock, the surrounding Chavasse Park, the Mersey Trams scheme, the Liverpool Canal Link, and the Mann Island development (LUAU 2001; OA North 2006; OA North forthcoming).

1.2 LOCATION, TOPOGRAPHICAL AND PHYSICAL BACKGROUND

- 1.2.1 The potential development involves an area of land between the River Mersey and the Three Graces on the Pierhead; it lies at between 6.15m and 6.40m AOD. Much of the surrounding area consists of either open areas of artificial park and communal space, roads, access points (namely the old ferry terminal), whilst the main part of the site comprises the disused Shanghai Palace restaurant building. To the east are the construction works for the Liverpool Canal Link.
- 1.2.2 ***Physical Background:*** the geology of this part of Liverpool consists of drift deposits of Boulder Clay in the inland urban areas, with narrow bands of alluvium along the coastal margins overlying the solid geology which consists of Pebble Beds and Upper Mottled Sandstone (Philpott 1999). Physically, this area of land was originally part of the River Mersey until it was reclaimed in the eighteenth century.

1.3 HISTORICAL BACKGROUND

- 1.3.1 **Medieval Liverpool (1066-1500):** the establishment of the town of Liverpool is well documented. The name '*Liuerpol*' was first mentioned in a charter of 1190-4, with the town forming a part of the hundred of West Derby (Nicholson 1981). In 1207, a further charter was granted by King John which effectively elevated the settlement from a fishing and farming village to a royal borough. Between the granting of this charter and 1296, the population of the town had increased from 150 families to 168. The town then consisted of seven streets, the names of which are mentioned in documents from about 1300. These streets survive in the modern plan of the town, though they have been much widened. Important buildings were constructed throughout this period, including the castle, the Chapel of St Mary del Key, St Nicholas, and the Tower (*op cit*, 7).
- 1.3.2 The town was positioned next to the Pool, a prominent topographical feature and natural inlet; the place-name 'Liverpool' being derived from the Pool. The Pool lay south of a ridge of sandstone, overlain by boulder clay, and the ancient shore-line was along the line of The Strand. It was a natural tidal inlet or creek fed by streams arising further north, and was nearly 1.5km long at high tide (Stewart-Brown 1932, 88). The study area includes the major part of the mouth of this former tidal creek.
- 1.3.3 The Pool is believed to have formed an important part in the town's life and in its maritime trade, acting as an area where cargoes would have been unloaded, and ships built and repaired. However, no medieval records survive relating to the use of the Pool (Stewart-Brown 1932, 89).
- 1.3.4 **Post-Medieval Expansion (1540-1710):** in the 1660s a major Liverpool landowner, Sir Edward Moore, refers to the importance of the Pool for future shipping, writing '*if ever the Pool be cut navigable*', indicating that it was not suitable at that time (Stewart-Brown 1932, 90). By the turn of the eighteenth century, the Pool was probably shallow and unusable by anything other than relatively small ships, particularly as between the Haymarket and the site of the Old Dock there was a fall of only five feet (Stewart-Brown 1932, 105).
- 1.3.5 Until the construction of the Old Dock, ships on the Mersey had a number of difficulties to contend with in order to unload their cargoes. The tidal range of the river (at 30') was exceptionally large, and rendered ships incredibly unstable in a river that was already dangerous from strong under-currents, sand spits and strong north-westerly winds (MacLeod 1982, 3). In the sixteenth century, the only form of protection for ships was a jetty or break-water at the mouth of the '*old haven*' (*ibid*). Nevertheless, the shipping was constantly plagued by freak tides and storms, which could smash ships and lose precious cargo; a particularly violent storm in 1561 destroyed the breakwater, with catastrophic implications for trade. The mayor ordered the council to provide funds for an immediate replacement, and ordered one man from every house in every street to go and work on '*the new haven*' (MacLeod 1982, 4).
- 1.3.6 With the demise of Chester's trade through the silting of the Dee by the late 1600s, Liverpool's trade began to rise in prominence, although, due to its problems, it faced competition from ships anchoring in the relatively safer waters of the Sloyne on the Cheshire side (MacLeod 1982, 4). Shipping traffic was increasing in the area and the ports were becoming overcrowded. The sizes of ships were also increasing as transatlantic shipping became common, and incidents of rubbish tipping into the

harbour also aggravated the problems of space (*op cit*, 6). The upsurge of the ship-building trade on the water's edge also exacerbated the problems (*ibid*).

- 1.3.7 ***The Old Dock (1710-1826)***: the limitation of the Pool brought increasing demand for better accommodation for ships. In 1707, the scheme was finally mooted for an enclosed wet dock, and in November 1708, the Town Council formally requested the two MPs to commission an appropriate person to '*draw a plan of the intended dock*' (Ritchie-Noakes 1984). In 1709, the first Dock Act was passed, empowering the Mayor, Aldermen, Bailiffs, and Common Council as the trustees of the dock and allowing them to levy dock dues on ships entering the harbour.
- 1.3.8 The corporation gave a large piece of land forming the mouth of the Old Pool at the bottom of Pool Lane (later South Castle Street) for its construction, covering some four acres, called the 'old' or 'lower pool' (MacLeod 1982, 10). The construction of the dock was not without financial difficulties; the scheme was financed on the back of heavy borrowing, no one made a profit on the dock construction, and it was not fully finished until seven years after the act of 1709 (*op cit*, 9). The man appointed to build the dock, Thomas Steers, began work in May 1710. It is thought that he had been the chief engineer of the Howland Dock at Rotherhithe on the Thames, and the principal assistant of George Sorrocold, who had first agreed to help construct the dock (the Howland Dock, one of the first wet docks, was not, however, a commercial dock, but used for the fitting of ships after they had been launched).
- 1.3.9 The construction of the dock was a formidable task, particularly as it was built entirely by hand; the building work had to be undertaken in a sea-lake whose coffer-dam was constantly hammered by tidal currents, and from water flowing down into the Pool from the streams off the high ground of Mosslake (MacLeod 1982, 12). It ultimately took seven years to complete and was '*roughly rectangular, aligned east/west, with some 3½ acres of water area and a tidal entrance basin*' (Picton 1873).
- 1.3.10 The opening of the dock at Liverpool occurred 53 years ahead of the first commercial wet dock at Bristol, 63 years ahead of the example at Hull, and almost 100 years prior to the establishment of London's first commercial wet dock, which opened in 1802 (Macleod 1982, 1). The dock was completed in 1716 but had been opened the previous year. One of the major advance of the new dock was that ships could now unload in one and a half days, rather than the 12 to 14 days which it had previously taken, reducing the cost of handling cargo compared to other ports (*op cit*, 13).
- 1.3.11 The impact of the opening of the Old Dock was immense; Chester, Bristol and London are all documented to have lost significant trade throughout the eighteenth century as a result of its opening (MacLeod 1982, 14). Liverpool developed into a major city of commerce, particularly in the valuable commodity of tobacco, and became the second greatest seaport in the kingdom; the number of seamen working from the port trebled, the number of ships it owned trebled, and the tonnage of ships entering the port increased by a factor of ten (*ibid*). The city was well-placed to carry out trade with Ireland and the continent, which began to occur increasingly with the demise of Chester's trade (*op cit*, 2). The position of the port meant that Liverpool was convenient for the slave trade, forming the apex of the slave trading triangle between Africa and the West Indies and North America; by 1792, the port possessed over half of the English slave trade, having taken the lead from Bristol

and London, and just under half of the European slave trade traffic (*ibid*). With the decline of slavery in the early 1800s (the last slave-ship leaving the port in 1807 – *ibid*), Liverpool began exploitation of the next commercial venture – the cotton industry. Liverpool became an important source for cotton, located as it was adjacent to the cotton and textile mills of Lancashire; raw cotton was imported and manufactured produce was exported in equal measure. The prominence of the town led to Liverpool's continued commercial prosperity and expansion in the eighteenth and nineteenth centuries.

- 1.3.12 Liverpool was the most easily accessible port and had good trading links and was the main port for the raw cotton imports. Lancashire dominated the English cotton industry continuously into the twentieth century and this was partly due to and responsible for Liverpool's ongoing success.
- 1.3.13 The Old Dock did not stand in isolation as there was also a 1½ acre octagonal tidal entrance basin, a graving dock off the north side and a landing stage projecting from the south side of the entrance to the entrance basin which provided short-term berthing and safe access to the dock (Jarvis 1996). The graving dock was superseded by the construction of the Dry Dock (later Canning Dock) in 1740 (Ritchie-Noakes 1984). A second graving dock to replace that destroyed by construction of the Dry Dock was built in 1746 at the north end of the Dry Dock itself (*ibid*). It also seems likely that the northern extent of the Pool were covered over with the later development of Paradise Street, Whitechapel etc (Sharples 2004, 7). The success of the Old Dock and Canning Dock was such a success that it spawned further enclosed docks, including South Dock in 1753 and Salterhouse Dock in 1760 (Jones 1996, 111).
- 1.3.14 **George's Dock (Fig 2)**: was built under the 1761 Dock Act that commissioned a dock to be built north of Canning Dock, approximately where the Three Graces stand at present; it was begun in 1762 and completed by 1771. The dock was aligned north / south and covered a three acre area. It was entered from both the north end via George's Basin, which was arranged perpendicular to the main dock, and to the south through a small passage connecting it to the Dry Dock, which became the present Canning Dock. To the east of the dock was a warehousing area, which included the impressive Goree Warehouses built in 1793 and rebuilt in 1810 after a fire, before being bombed in 1941. The name reflects the trade links with Goree Island, off Senegal, which was probably the largest slave trading centre on the African coast (now a World Heritage Site) (LCC 2005, 123). The dock was enlarged and repaired in the first quarter of the nineteenth century and the northern entrance was closed off in 1871.
- 1.3.15 The dock was closed in 1900 and infilled and the area, known as the Pierhead saw the construction of the Three Graces which consists of the Royal Liver Building of 1908-11 (Listed Grade I) at the north end. This building is noted as among the first reinforced concrete frame buildings in the country. South of this is the Cunard Building built 1913-16 (Listed Grade II*) and at the south end of the three the Port of Liverpool Building of 1907 (Listed Grade II*). All are clad in white Portland stone and form a varied and impressive group.
- 1.3.16 **Manchester Dock (Fig 2)**: the Manchester Dock was constructed and opened by 1785-9 for the purpose of harbouring the Mersey Flats, barges and lighters which were flat bottomed barges used for 'lightening' other ships loads or loading and unloading ships that could not be wharfed / docked (Jones 1996).

- 1.3.17 **Chester Basin:** the Chester Basin was constructed between 1785 and 1795 to meet the need for increased moorings for inland vessels with destinations in Cheshire, Lancashire and the Midlands, the latter using the Shropshire Union canal, also opened in 1795 (Jarvis 1996).
- 1.3.18 **Mersey Ferries:** documentary sources mention ferries and transportation of goods and people across the River Mersey from, as early as the Medieval period, with one mentioned at Seacombe in the Domesday book of 1086 (Morgan 1978). There was a significant degree of transport from Liverpool to Birkenhead and the monks at the Birkenhead priory were known to have set up a hostel for travellers by the twelfth century in case of bad weather impairing their journey. In the seventeenth century Celia Fiennes (Morris 1982), describes her trip over the Mersey in a boat large enough to carry her baggage and horses, and the voyage taking about an hour and a half, today the journey takes about 20 minutes. As a means of compensation to the city for sieges endured during the Civil War the corporation was given rights for ferries (Wilson 1870-2). By the eighteenth century Daniel Defoe records a ferry ride which ends with him being carried the last part across the shore by a man (Defoe 1680-1715). Nicholas Blundell, writing at around the same time, says that the ferry could be summoned by the use of smoke signals (Tyrer 1970). The Buck brothers engraving of the view of Liverpool from the south-west clearly shows and mentions the Rock House ferry boat and the Eastham ferry boat, both afloat in the river. This demonstrates the numerous locations to which ferries ran on either side of the Mersey, including Birkenhead, Wallasey, Seacombe, Eastham, Tranmere, Frodsham, New Brighton and others.
- 1.3.19 During the early nineteenth century ferry traffic increased and in 1817 the first steam ferries were in use. A floating landing stage was installed in 1847, which was effectively a pontoon that could rise and fall with the tide and was then bridged across to the Pierhead. Further subsequent developments included a floating roadway to ease the transit of passengers. By the late nineteenth century thousands of passenger were recorded as using the ferries daily, for both pleasure and commuting purposes.
- 1.3.20 On the Liverpool shore the ferries went from a position along the western side of what is now the Pierhead which, when George's Dock was operating, was a difficult proposition. In order to board the ferries passengers had to cross the northern entrance to the Dock. If ships then entered the dock this left the passengers temporarily stranded, although after the north entrance was closed in 1871 this ceased to be a problem (LCC 2005). In 1876 the small landing stage was replaced by what, at the time, was the world's longest landing stage. At the northern end was Prince's Landing stage for passenger liners, while at the southern end the local Mersey ferries docked. In order to increase the communications out from the Pierhead, and particularly to improve access to the ferries, railway lines were extended into this area in 1895. Gradually as road transport increased in the early twentieth century, and with the opening of the Mersey road tunnels in the 1930s, the ferries were used less frequently. In 1956 the night ferries, demonstrative of their previous extensive use, ceased to operate. In the mid 1970s the large landing stage was replaced by a smaller one exclusively for the Mersey ferries. The number of ferry passengers has been increasing as an alternative to traffic congestion and as part of Liverpool's lively tourist trade, aided by Gerry and the Pacemakers, who's refrains are heard daily along the Pierhead.

- 1.3.21 **George's Ferry Basin:** George's Ferry basin was constructed in about 1770, and was described in the late nineteenth century as always having '...been used as a place of shelter and for river-boats; has a water-area of 1,344 yards, and a quayside of 160 lineal yards; and includes an incline slip for the landing and shipping of goods out of and into ferry-vessels...' (Wilson 1870-2, 123).
- 1.3.22 By 1824 Liverpool had approximately 50 acres of enclosed dock space. The docks at Liverpool had numerous uses, and included serving as stopping points for ferries that ran to places like Chester. They also received goods for use in production in Liverpool itself, which included ground slate coming in from mills near Llandegai to be used at the Herculaneum potteries. The docks also formed a stage in the journey of goods, so that china clay, shipped from Charlestown, Cornwall, was offloaded and then sent either overland or by canal to potteries in north Staffordshire. Thus Liverpool's success and growth was not only a product of the docks but also its geographical location and a reasonably well integrated transport system of firstly canals and then railways. It was common for raw materials to be shipped to Liverpool then transferred out on Mersey Flats, so that the goods could be taken directly to warehouses in Manchester; this was particularly the case for cotton.
- 1.3.23 **Associated Buildings:** warehouses were present in Liverpool prior to the construction of the Old Dock but flourished after its construction and the increasing amount of trade coming into the city. Warehouses in the eighteenth century were often associated with, or attached to, the owner's dwelling. The warehouses were often between five and ten storeys in height, with gabled fronts, and were long and narrow in plan. Distinctively, they often had a central pulley below the gabled roof and loading doors for each floor positioned below this (Giles 2004); the same form continued through the nineteenth century as well. Such features are still visible within the central area of Liverpool today and the later warehouses had further design refinements including loading doors recessed into the walls for better safety. Alongside Irwell Street exist some examples of early twentieth century warehouses, and these represent only the few survivals of what was once a much more common form.
- 1.3.24 **Baths and Bathing:** the latter part of the eighteenth century saw the relatively widespread fashion for 'taking the waters' expand to include bathing, particularly sea-bathing. This fashion can also be attributed to a number of external factors integral to the industrial revolution period; the urban population was expanding and urban slums were increasing in magnitude and number, which were intrinsically linked to a series of cholera epidemics around the 1830s; and there was a rising awareness of personal cleanliness. This all added an impetus to the municipal bath movement.
- 1.3.25 There is documentary evidence of sea-bathing in the early part of the eighteenth century in the Liverpool area, with the Rate Assessment Book of 1708 (Aughton 1993) recording that a Mr James Gibbons lived at 'ye bagniall', meaning bathing place, in Water Street. A mere year later, in 1709, and the antiquarian Nicholas Blundell wrote of his wife and children taking to the water along the sea shore in Liverpool (Tyrer 1970).
- 1.3.26 Eyes 1765 map shows public baths for sea bathing on what became known as Bath Street, near Prince's Dock. This was at the southern end of an area called North Shore, which was, during the later eighteenth century and prior to dock

constructions, a place of bathing and promenading. The Corporation of Liverpool purchased a pre-existing private establishment in 1794, and this was used by the more exclusive, wealthier members of society who bathed in the river under the protection of stalls and a canopy (Aughton 1993). Bathing machines along the shore reputedly extended over a mile by 1830, with Liverpool being renowned as a sea-bathing resort at this time.

- 1.3.27 Baines in 1852 described Liverpool as having '*...become a town of considerable resort as a sea-bathing place; and the inhabitants from the interior of Lancashire resort hither in great numbers during the summer months to enjoy this salubrious and gratifying exercise. The floating bath, which is moored during the season, off George's Pier Head, affords excellent accommodation to those who prefer this novel mode of immersion, and on the shore machines are provided as at Scarborough, Brighton and Ramsgate, for conveying the visitors into the briny waves and returning them in safety to the shore. Since the removal of the old baths to make way for the quays at the Prince's Dock, the bath accommodation is somewhat diminished, but a complete suite of new baths is now erecting on the west side of George's Dock, which will, when completed, be an ornament to the town, and contribute to the health and comfort both of the inhabitants and those that repair hither for the benefit of sea-bathing.*' (Baines 1852, 35)
- 1.3.28 A floating baths was established off George's Pierhead in 1816, while the Bath Street facilities were demolished the following year. In 1828 the first public baths in Britain, which effectively covered both swimming and personal washing, were built in Liverpool, and these were the George's Baths (Plates 1 and 2). Sources suggest that the baths incorporated two large swimming pools, two smaller plunge pools, eleven private tubs, a vapour or steam bath and a shower bath. The baths had been built with public money but entrance required fees to be paid. In 1842 the first publicly-funded baths, which also comprised a washhouse for clothes and linen, was built in Upper Frederick Street, and was again another first for Liverpool as this was the first truly public baths and washhouse in Britain. The Fredrick Street Baths were built four years before the 1846 Act to Encourage the Establishment of Public Baths and Washhouses. The Paul Street Baths were opened in the same year, 1846, with successive baths opened at: Cornwallis Baths in 1851; Margaret Street in 1863; Steble Street Baths in 1874; Westminster Road Baths in 1877; Lodge Lane Baths in 1878; Burroughs Garden Baths in 1879; Burlington Street open-air bath in 1895; Gore Street open-air bath in 1898 and numerous others. Half a century after the act, by 1896, over 200 boroughs / municipalities were maintaining public baths in Britain.
- 1.3.29 **Canals:** aside from the docks infrastructure, the success of Liverpool was related to the expanding transport network which developed alongside the economic activities associated with the port. The canal systems were the most economic means of transporting goods during the eighteenth century and, by the end of the century, there were about 2,000 miles of canalways in Britain (Hadfield 1984). The Leeds to Liverpool canal was commissioned under the Canal Act of 1770 and the section leading into Liverpool was completed by 1773. The complete length of the Leeds to Liverpool canal was around 127 miles and this was completed in 1816. Prior to 1846 goods were moved inefficiently from the canal system to and from the dock system using horse-drawn vehicles. After 1846, however, a series of locks connected the canal to Stanley Dock, which was itself opened in 1848; this then allowed the vessels to pass into the rest of the dock system by inefficiently using

the Mersey. Over 150 years later the canal is finally being joined to the Canning and Albert Docks with the construction of the Liverpool Canal Link.

1.4 ARCHAEOLOGICAL WORKS

- 1.4.1 **Chavasse Park 1970s:** an archaeological investigation took place at the junction of Canning Place and South Castle Street (Fig 3). The work was a rescue excavation undertaken in the angle of Canning Place, Litherland Alley and South Castle Street in 1977 by Robina McNeil, on behalf of the Merseyside Archaeological Society, Merseyside County Museums, the Department of the Environment and the University of Liverpool. This revealed a section of the foreshore on the west side of South Castle Street in the angle formed by that road, Canning Place, and Litherland Alley (centred at NGR SJ 3434 9039) (Philpott 1999, 4; Davey and MacNeil 1985).
- 1.4.2 These excavations showed that the Pool at that point contained two major phases of levelling, both of seventeenth century date. Finds included small but well-dated groups of pottery and clay pipes of the seventeenth and early eighteenth century. The 1977 excavation produced evidence for dense nineteenth century housing on the site, some with cellars, but also, more significantly, it located the edge of what was interpreted as the original Pool of Liverpool. Archaeological deposits within the Pool were consistent with infilling by soil, crushed sandstone and stones during the mid seventeenth century (Philpott 1999, 4; Davey and MacNeil 1985).
- 1.4.3 **Dock Road:** a watching brief was undertaken in September 1980 on works concerned with the widening and re-alignment of the Dock Road and the construction of the ring road in Canning Place. Part of the wall of the Old Dock was uncovered and recorded by the Archaeological Survey of Merseyside: '*Severe time constraints prevented major excavation, but a yellow sandstone coping was uncovered, standing on top of a sturdy brick wall*' (Nicholson 1981, 3; Jarvis 1996, 7).
- 1.4.4 **The Old Dock and Chavasse Park 2001-7:** this is the programme of archaeological work that was required as part of the Paradise Street Development Area (PSDA), which is set across the town centre of Liverpool (centred at NGR SJ 3430 9010, Fig 3). The first stage of the investigation was an evaluation undertaken in 2001, which was targeted on the line of the Old Dock (LUAU 2001). The second phase of investigation entailed both an evaluation programme and a large scale excavation concurrently. The main excavation area within Chavasse Park, covered an area of over 3500m² and the evaluation trenches covered an area of 3160m².
- 1.4.5 The findings included: surviving remains of the medieval town of Liverpool, the remains of the Pool; the historic quayside, including deposits and structures connected with the Old Dock; other city centre activity, such as market places, residential remains etc; and subsequent nineteenth century activity associated with the New Customs House. It also identified extensive commercial activity associated with the docks comprising industrial buildings, warehouses, dwellings, roads and infrastructure.
- 1.4.6 This second stage of investigation began in March 2004 and continued through to November 2005. The works are considered in respect to five main spatial areas: the Old Dock (OD 04); the Urban Area (CP 04 evaluation); Chavasse Park (CP 04 excavation); the Strand (LT 04) and Outlying Sites (LD 04).

- 1.4.7 The trenching revealed several aspects of the Old Dock construction. Firstly the Old Dock was not cut directly into the Pool clays, instead it was evident that extensive areas were cleared of Pool clays in advance of construction and then the walls were built free-standing, before clay was used to backfill behind the dock wall. On the north side of the dock it was found that the rear face of the wall rested on the underlying bedrock and was located along the northern edge of the Pool. Deep excavations uncovered timbers between 4m and 9m long, that were set at right angles to the wall and keyed into the wall itself; some had an iron sheath at one end, presumably to anchor into the wall. They were evidently contemporary with the construction. The timbers were set at regular intervals of 4.5-5m and had additional supporting timbers in each case.
- 1.4.8 The Old Dock was backfilled in the early nineteenth century, prior to the construction of a large customs house on the site. The construction of this customs house was responsible for parts of the Old Dock wall being removed, and the north-westernmost trench revealed no sign of the wall, reflecting intensive disturbance. However, it did demonstrate numerous tip deposits from the backfilling, complete with ceramic assemblages contemporary with the construction of the Customs House in 1826. Trenches dug along the east side of the Old Dock found that the Customs House, constructed of massive pink ashlar sandstone blocks, had significantly damaged the upper part of the wall.
- 1.4.9 Aside from the Old Dock, the excavations in Chavasse Park revealed surviving elements of the medieval landscape, along with artefactual material. The work also revealed elements of the urban centre from the time of the Old Dock, and included the street layouts, foundations of both secular and religious buildings, as well as some other elements of the city's infrastructure. Prior to the 1820s these buildings were typically built of a characteristic yellow sandstone; however, subsequently, the trend was to use red brick.
- 1.4.10 Within Chavasse Park the evaluation trenches revealed deep cellars, all of brick construction. The bricks all appeared hand-made and the origin of the structures probably dates from the late eighteenth to mid nineteenth century. In the larger areas examined the cellars were found to truncate areas of soils which produced ceramic assemblages of generally early date, that included numerous sherds of medieval pottery. The project uncovered several streets that had been redeveloped and covered subsequent to Second World War bombing; the upper levels of these areas comprised sett road surfaces complete with contemporary tram rails.
- 1.4.12 ***Merseytram and The Strand:*** work near the entrance to Canning and Salthouse Docks (Fig 3) revealed sandstone walling used to block the entrance to the Old Dock, which included a block with inverted Roman numerals, that had originally marked depths on a quayside elsewhere. The earlier alignment of Canning Dock wall was also uncovered, which tied in with historic mapping.

2. OBJECTIVES

2.1 PROJECT DESIGN

- 2.1.1 A project design (*Appendix 1*) was prepared by OA North in accordance with a verbal brief by the Merseyside Archaeologist. This provided for the excavation of a single 35m long trench diagonally, north/south, across the extent of the new build. At the time of the works the adjacent Shanghai Palace restaurant was still standing and therefore only the northern part of the site was available for investigation, with the intention that further evaluation would follow on after its demolition.
- 2.1.2 ***Variations from the Project Design:*** the main deviation from the project design was due to the ground conditions. Several layers of modern concrete had been laid across the entire area and it was necessary to break these out before investigation could proceed. This was undertaken by the contractors, under constant archaeological supervision, and archaeological features were revealed immediately beneath the concrete. This meant that by stripping off the concrete, it was possible to locate the archaeological remains throughout the extent of the available development area and these could then be further examined by continued excavation. Thus the need for a long evaluation trench in this area was negated. A major constraint on the works was that there was restricted space for the spoil and this had to be stored either on unexcavated sections of the site or on previously exposed part of the site. Hence the breaking out and removal of concrete was of an intermittent nature and it was not possible to expose all the features at once.
- 2.1.3 In all other respects the trenching was undertaken in accordance with the project design, and all work was consistent with the relevant standards and procedures provided by the Institute of Field Archaeologists.

2.2 OBJECTIVES

- 2.2.1 Previous excavations, evaluations and the assessments have demonstrated that there is the potential for archaeological deposits and structures to survive within the docklands of Liverpool from the post-medieval period. Areas of potentially significant archaeology have been highlighted and such sites have been subject to evaluation.
- 2.2.2 The proposal for the development to incorporate pile foundations had the potential to severely disturb buried structures and there was a need to evaluate the below ground survival in advance of the establishment of the foundations. Cartographic analysis showed that the proposed new terminal lies for the most part at the north end of George's Baths and might cross George's Ferry Basin. George's Ferry Basin, first shown on Sherwood's 1821 map, had been backfilled by the time of the 1908 OS map. There is also the possibility that it will impact on a ferry pier seen on the 1893 OS map. The key aims of the proposed evaluation were to investigate the survival of this small dock, and identify any remains possibly relating to it, the baths and the pier. Consequently, the objectives of the present project are as follows:
- to establish the presence or absence of archaeological remains within the identified area;

- to determine the extent, condition, nature, character, quality and date of any archaeological remains present;
- to establish any ecofactual and environmental potential of archaeological deposits and features;
- to make an assessment of the impact of the scheme on any significant remains or deposits encountered to enable the appropriate level of mitigation recording as proposed in the Environmental Statement;
- where possible, implement a programme of mitigation recording in advance of construction works, should this be achievable.

2.2.3 To these ends it was necessary to assess the thickness, depth and depositional history of any significant archaeological structures and/or deposits. Despite the likelihood that the dock structures extend to a depth of 9m, it was proposed to only excavate to a maximum depth of 2-3m. The nature of the main stratigraphical units encountered was characterised in terms of their physical composition (stone, gravel, organic materials etc) and their archaeological formation (primary deposits, secondary deposits etc). This entailed excavation to the top of significant archaeology, together with localised sondages which explored in more detail the archaeological stratigraphy. The work involved the retrieval of all kinds of stratified artefactual evidence (including pottery, brick tile, stone, glass, metal, bone, small finds, etc), and ecofactual and environmental evidence (including animal bone, human bone, plant remains, pollen, peat, charcoal, molluscs, soils etc).

3. METHODOLOGY

3.1 EXCAVATION METHODOLOGY

3.1.1 The extensive modern concrete overburden was removed mechanically using a 12 tonne 360° mechanical excavator fitted with a 1.8m toothed bucket to remove the concrete and a toothless ditching bucket to remove overburden beneath the concrete. It was also necessary to use a breaker to remove thicker layers of concrete. The work was constantly supervised by a suitably experienced archaeologist. Further machine excavation was then used to define carefully the extent of any surviving walls and other remains. Thereafter, structural remains were cleaned manually to define their extent, nature, form and, where possible, date. Spoil was retained on site and stockpiled at a safe distance from the evaluation trench before being used to backfill the trenches.

3.2 RECORDING METHODOLOGY

3.2.1 All elements of the work were recorded in accordance with current English Heritage guidelines (1991) and the best practices formulated by English Heritage's Centre for Archaeology (CfA).

3.2.2 **Planning:** archaeological planning was undertaken using a data-logging total station (Leica) linked into a Penmap computer, utilising AutoCad version R14. All planning data was digitally incorporated into a CAD system in the course of the evaluation and was superimposed with an OS base survey. This process generated scaled plans which were then subject to manual survey enhancement. The drawings were generated at an accuracy appropriate for 1:20 scale.

3.2.3 **Context Recording:** archaeological stratigraphy was recorded using *pro-forma* sheets in accordance with those used by English Heritage. Similar object record and photographic record *pro-formas* were used. All written records of survey data, contexts, artefacts and ecofacts were cross-referenced from *pro-forma* record sheets using sequential numbering.

3.2.4 **Photography:** a full and detailed photographic record of individual contexts was maintained and similarly general views from standard view-points of the overall site at all stages of the evaluation were generated. Photography was undertaken using 35mm cameras on archivably black and white print film as well as colour transparency. Digital photography was also undertaken throughout the course of the fieldwork for presentation purposes. Photographic records were maintained on special photographic *pro-forma* sheets.

3.3 FINDS

3.3.1 The finds recovery and sampling programmes were in accordance with current best practice (following IFA and other specialist guidelines) and subject to appropriate expert advice. Oxford Archaeology employs a wide range of in-house finds specialists and palaeoecologists, providing considerable expertise in the investigation, excavation, and finds management of sites of all periods and types, who were readily available for consultation and site visits.

- 3.3.2 In addition, OA North maintains close contact with Ancient Monuments Laboratory Conservators at the Universities of Durham and York, from whom advice and emergency access to conservation facilities was readily available. Finds handling, management and storage during and after fieldwork followed professional guidelines (IFA/UKIC).
- 3.3.3 Artefacts and ecofacts were collected during the mechanical excavation of overburden when significant deposits were encountered. No finds category was neglected in order to provide as full a record as possible. Other finds recovered during the removal of overburden were retained only if of significance to the dating and/or interpretation of the site or specific features. Subsequent to the removal of overburden artefacts and ecofacts were collected and handled as per best practice. All material was collected and identified by stratigraphic and spatial units. Hand collection by stratigraphic unit was the principal method of collection.
- 3.3.4 All finds were treated in accordance with OA North standard practice, which is cognisant of IFA and UKIC Guidelines. In general this meant that (where appropriate or safe to do so) finds are washed, dried, marked, bagged and packed in stable conditions; no attempt at conservation has been made unless special circumstances require prompt action. In such a case guidance and/or expertise was sought from a suitably qualified conservator.

3.4 ARCHIVE

- 3.4.1 A full professional archive has been compiled in accordance with OA North standard best practice, and in accordance with current IFA and English Heritage guidelines (1991). The paper archive will be deposited with the Liverpool Record Office (Central Library, William Brown Street, Liverpool, L3 8EW), and the material archive (artefacts and ecofacts: Site Code **FT 07**, Admin code: L9908) will be deposited with the National Museums Liverpool.

4. FIELDWORK RESULTS

4.1 INTRODUCTION

4.1.1 The following chapter presents the summary results of the evaluation; summary context descriptions are within *Appendix 2* and the complete stratigraphic matrix is present in *Appendix 3*. The intention of the evaluation was to establish the survival of George's Ferry Basin, and George's Baths.

4.2 TRENCH 1

4.2.1 Trench 1 was located to the immediate north of the Shangai Palace restaurant and a few metres east of the River Mersey on the site of the former ferry terminal (Fig 1). The trench was aligned north/south and was excavated to a maximum depth of 2m with stepped and battered sides on the north, and east-facing sections which enabled safe access to and from the trench. Excavations depths were limited to the south and west and therefore these sections did not warrant battering.

4.2.2 The upper surface was concrete (**7007**), beneath which were various backfill and made ground deposits. These overlay and surrounded the southern wall of George's Ferry Basin (**7000**) (Fig 4; Plate 3). The George's Ferry Basin wall was a substantial red and yellow sandstone structure, orientated east-north-east /west-south-west within the limits of the excavation. The trench also revealed the footing for the south pier of a landing stage that was depicted on the Second Edition Ordnance Survey map of 1893 (**7001**). This structure, located at the western extremity of the trench, comprised large pink sandstone blocks and substantial iron supports (Plate 4). A truncated brick culvert (**7005**), which extended north/south through the centre of the trench, was seen to the east of pier footing **7001**. The southern extremity of the trench revealed the northern walls (**7003**) of George's Baths. All of these remains were excavated in stages as the method of excavation employed by the main contractor entailed redepositing the spoil on top of the features once they had been recorded, and in some instances before it was recorded so that then the features had to be reexposed to be recorded.

4.2.3 The George's Ferry Basin wall **7000** measured 8m long, 2.20m wide and was excavated to a depth of 0.50m. It was constructed of pink and yellow sandstone blocks measuring 1.20m long and 0.9m wide (with some variation probably derived from a local quarry (possibly St James Cemetery Quarry behind the Anglican Cathedral). The stones were tightly keyed into place with some evidence of a mortar bond, which comprised a mid-grey, lime mortar with pebble inclusions. The top of the sandstone blocks had a rough, damaged appearance, the original surface having been removed when the modern concrete surface was constructed. The northern elevation of the wall remained unexcavated beneath concrete, being just beyond the limits of excavation. The southern elevation of the wall (Plate 5) revealed some linear chisel marks, but a large proportion of the wall was degraded and showed little detail.

4.2.4 The southern elevation also revealed a deliberate gap within a worked sandstone block (Plate 5), which was grooved on its western and southern face. This block

was positioned on the right side of the gap and may have been a fixture for a ladder, or some fitting giving access to the wall. As the rubble surrounding the wall, **7002**, was only excavated to 0.50m the full extent of the grooved block and its depth was never established. The fact that the southern elevation would have been the landward side of the basin would indicate that access may have only been necessary during construction.

- 4.2.5 A segment of sandstone wall was observed at a right angle to the southern entrance wall forming a return. This segment represents the western wall of George's Ferry Basin. Only part of the top of the wall was exposed and it was ultimately obscured with concrete rubble arising from the policy of keeping the spoil on site and constantly moving it around the area of excavation. The construction was similar to that of the southern wall although the top course of sandstone blocks survived. These appeared to be all of pink sandstone and revealed some wear; however this is based on a small extant portion of exposed wall.
- 4.2.6 The rubble fill **7002**, surrounding George's Ferry Basin, consisted of a mixture of bricks, mortar, silt clay, pebbles, sand, and concrete. This conglomerate of materials, used as a backfill, functioned as a levelling for more modern structures and surfaces. Its origins may well have been rubble recovered from the bombing of buildings during the Second World War, as it contained a high proportion of bricks; his fill covered most of the site.
- 4.2.7 The other substantial feature encountered was the footing **7001** (Plates 4 and 6) for a pier leading to a landing stage, which was clearly visible on the Second Edition Ordnance Survey map of 1893. The footing would have served to secure one of two piers that gave access to the landing stage; this footing would have supported the southern pier and was positioned a few metres south of George's Ferry Basin. The full extent of the footing was never revealed (due to the limits of the excavation), but enough was exposed to establish the form of its construction.
- 4.2.8 Footing **7001** was mainly constructed of large pink sandstone blocks with substantial iron plates on the eastern elevation. The extent of the eastern elevation was 8m in width and was excavated to a depth of 1.35m. This elevation is curved, bulging in an eastern direction. The iron plates were fitted to the sandstone blocks in an upright position and at intervals, tying them together. They have a central ridge which widens to 0.15m; this may increase with depth as the true extent was never established. The iron plates measured 1.20 wide by 0.04 thick and were dug to a depth of 1.08m. They were covered in heavy concretion and tar, and there was no indication of how they were fixed to the sandstone blocks. They would have afforded extra support and reinforcement for the pier.
- 4.2.9 The sandstone blocks were the main component of the footing's construction and their full extent was not revealed, as the footing extended westwards towards the River Mersey and beyond the limit of excavation. The eastern elevation revealed some linear chisel marks and also what were probably marks from a rotary saw. There was some damage at the southern and northern extents of the elevation where the sandstone was truncated. The size and shape of the sandstone blocks was difficult to establish due to the concretion and the iron plates obscuring the masonry. Two upright timbers were placed immediately to the east of the pier footing, but their function is unknown.

- 4.2.10 A small segment of brick culvert **7005** (Plate 7) measuring 2.10m long by 1.15m wide, was exposed just east of the pier footing. This had a north-north-east/south-south-west orientation, and was constructed using non-frogged bricks and was dome shaped; the bricks were bonded with a mid-grey lime mortar. The function was probably related to the removal of water from an unknown source, perhaps the nearby George's Baths. The culvert was partly truncated, and was only partly exposed, so it was difficult to establish the origin of its source and its destination; however, when the developer attempted to deconstruct the culvert it was seen to slope downwards in a northerly direction, indicating the flow must have been in a northerly direction, away from the baths.
- 4.2.11 At the southern end of the trench was a rubble fill, **7004** which was very similar to fill **7002** except that it had more clay, was sand rich and contained fewer bricks. This again was demolition rubble used to level the ground for modern construction. This overlay a wall, **7003** exposed running in an east-north-east/west-south-west direction with a return in a north-north-east/south-south-west orientation (Plate 8). Wall **7003** was identified as the northern extremity of George's Baths and was constructed using non-frogged bricks bonded with a light-grey lime mortar. The wall length was over 3.70m long by 0.87m wide with a return measuring 0.70m long, by 0.97m wide. The wall was excavated to a depth of 0.30m. The main bulk of George's Baths remained under the Shangai Palace Restaurant. After the removal of the concrete, **7007**, the wall was seen extending further to the east and north forming a square (not shown on Fig 4), which was probably a room, although no floor was identified. This would appear to be some sort of small annex at the baths entrance or side. As the developer indicated that this structure would not be affected by the piling no more of the feature was exposed.
- 4.2.12 Further north, removal of deposit **7004** revealed another wall, **7006** was partially seen, aligned east north east/west south west and approximately parallel to **7003**. It was constructed of mid-red handmade, unfrogged bricks and it was not clear whether this wall was associated with George's Baths or a later subterranean tank that was known to have been inserted in the vicinity later.

5. FINDS

5.1 POTTERY

- 5.1.1 In all, 18 fragments of pottery were recovered during the investigation, from contexts **7002** and **7004**. All the material recovered was from ceramic vessels, with 14 fragments from context **7002**, and four from **7004**. The full catalogue of the assemblage is contained within *Appendix 4*.
- 5.1.2 All of the fragments recovered were post-medieval in date, with the earliest fabric represented being Pearlware, and possibly Creamware (the fragments have been refired, so that the identification is tentative). Both of these can be placed in the very late eighteenth century at the earliest, and production continued into the nineteenth century. Two very small fragments of a plate with blue feather-edge decoration suggest the same date range. Other material was not sufficiently diagnostic to add to this dating, except to note that it potentially covered the entire nineteenth and early twentieth century.
- 5.1.3 **Conclusions:** the group of pottery is too small for valid comment on the number and range of wares and vessel forms present, and will sustain no further research.

6. DISCUSSION OF THE RESULTS

6.1 INTRODUCTION

6.1.1 The evaluation revealed archaeological remains of varying date and significance, and demonstrated that there are surviving remains of the George's Ferry Basin, George's Baths, a brick culvert, and the foundation of one of the anchor points for the landing stage in the Mersey (Fig 5), which date from the later eighteenth to late nineteenth centuries. George's Ferry Basin, built around 1770, is not displayed on Perry's map of 1769 but is visible on subsequent sources, such as Horwood's 1803 map. The George's Baths, built in 1828, are first shown on Gage's map of 1836.

6.2 PRESENCE AND SIGNIFICANCE OF ARCHAEOLOGICAL REMAINS

6.2.1 Each of the main features (Ferry Basin, Baths and landing stage) is of strong archaeological significance and important on all levels, locally, regionally, and nationally. The long history of ferry use on the River Mersey is reflected by the Ferry Basin, which provided a link between the Wirral and Liverpool, and at its height transported thousands of people daily between the two. The later landing stage may have been part of what at the time was the world's longest landing stage in 1876. George's Baths, built in 1828, were the first public baths in Britain, and included both swimming and personal washing. As such, these were the first in a series of baths built as part of a world-wide increase in health awareness and an aspect of public buildings which have subsequently become part of everyday life.

6.3 CONDITION OF STRUCTURES

6.3.1 The evaluation aimed to determine the extent, condition, nature, character, quality and date of any archaeological remains present. The remains of George's Ferry Basin, built around 1770, were revealed to be in a reasonable state of preservation, although concrete had been set directly on to the top of the sandstone wall top, which means that the uppermost surface does not survive once the concrete has been removed. The wall was found at a depth of approximately 0.65-0.75m below the present ground surface and will survive to a greater depth than was investigated by the present evaluation. It was formed mostly of large pink sandstone blocks, although yellow sandstone was also found to have been used in the construction. The face of the wall, as far as was seen on the northern side, showed it to be vertical, while on the southern side there was tentative evidence of structural elements, such as a possible niche.

6.3.2 The bulk of the remains of George's Baths (built in 1828) lie mostly beneath the Shanghai Palace building, but brick wall **7003** revealed in the southern part of the trench, and aligned east north east/west south west, had brickwork of the right period and was probably related to the northern extent of the baths; its brickwork was generally in good condition where it was uncovered.

6.3.3 The sandstone and iron foundations of the landing stage structures were in good condition, and survived to a height just below the modern concrete layers (c0.6m below the present surface). The iron elements were in particularly good condition.

6.4 ENVIRONMENTAL POTENTIAL

6.4.1 The aims of the evaluation included the establishment of any ecofactual and environmental potential of archaeological deposits and features. No ecofactual material was retrieved from the deposits encountered and no environmental material was retrieved from the evaluation since no waterlogged or organic-rich deposits of any significance were encountered. However, since the evaluation did not exceed any more than 2m from the present ground surface, it does not preclude the possibility of more significant deposits surviving at depth, with the potential to inform about human activities in the past.

7. IMPACT AND RECOMMENDATIONS

7.1 IMPACT

- 7.1.1 The aim of the evaluation was to assess the impact of the development scheme on any significant remains or deposits encountered to enable an appropriate level of mitigation recording. The proposed development will have a medium adverse impact on the structures encountered during the evaluation, which includes sections of the George's Baths and George's Ferry Basin, as well as elements of the landing stage shown on the 1893 OS mapping. The removal of concrete in the northern part of the site has shown that the remains survived less than a metre below the present ground surface, and removal of further areas of concrete may reveal more extensive remains.
- 7.1.2 The overall impact depends on the specific methods of construction to be used and as such any ground reduction activities over 0.5m in depth will have a greater impact than shallower intervention. The main impact of the construction would appear to be the use of rotary drilling for piling which will provide the foundations for the new build.

7.2 RECOMMENDATIONS

- 7.2.1 The overall objective of the evaluation was to implement, where possible, a programme of mitigation recording in advance of construction works.
- 7.2.2 The archaeological investigation has to date examined and recorded the northern part of the site which will be subject to the establishment of pile foundations. Following on from the evaluation, the developer adjusted the proposed pile foundation plan so that the piles would, as far as possible, avoid the key archaeological features, such as the baths and basin walls. On this basis, the Merseyside Archaeologist has agreed that the foundations should be able to proceed without further recording in this area.
- 7.2.3 The southern part of the site, previously occupied by the Shanghai Palace restaurant, which probably has buried remains of George's Baths, has yet to be investigated. The restaurant has now been demolished, and the area is scheduled for landscaping which will potentially have an impact on the underlying archaeological remains. Based on the archaeological remains revealed in the northern part of the site it is recommended that a programme of further archaeological evaluation be carried out on the southern area. This would need to link into the documentary archive, in particular the photographic evidence, plans of individual properties, trade directory entries, and with the work already undertaken on the Ferry Basin and Baths.
- 7.2.4 Subject to confirmation that there are surviving remains of the baths in this southern area, it is recommended that a programme of archaeological mitigation recording be undertaken prior to any development landscaping of the site so as to preserve by record the remains of significant elements of Liverpool's commercial and mercantile maritime heritage. It is considered that the implementation of such archaeological recording measures will be able to mitigate the loss of elements of historic and archaeological resource.

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APPENDIX 1: PROJECT DESIGN

**Oxford
Archaeology
North**

August 2007

FERRY TERMINAL, PIERHEAD, LIVERPOOL,

ARCHAEOLOGICAL EVALUATION PROJECT DESIGN

Proposals

The following project design is offered as a methodology for works subject to archaeological evaluation, to be carried out prior to the construction of the new Pier Head Ferry Terminal Building, Liverpool.

1. BACKGROUND

1.1 CIRCUMSTANCES OF PROJECT

1.1.1 This project design defines the overall strategy and methodology for an archaeological evaluation in advance of the construction of the proposed new Pier Head Terminal Building, Liverpool (centred at NGR SJ 3381 9018). The project design has been formulated to meet the requirements of the Merseyside Archaeologist.

1.1.2 The area of works lies near the centre of Liverpool and is within the extent of the Maritime Mercantile City of Liverpool World Heritage Site, more specifically within the area defined as; Area 1 Pier Head, which includes the Three Graces.

1.2 ARCHAEOLOGICAL BACKGROUND

1.2.1 Medieval Liverpool (1066-1500): the establishment of the town of Liverpool is well documented. The name 'Liuerpol' is first mentioned in a charter of 1190-4, with the town forming a part of the hundred of West Derby (Nicholson 1981). In 1207, a further charter was granted by King John which effectively elevated the settlement from a fishing and farming village to a royal borough. Between the granting of this charter and 1296, the population of the town had increased from 150 families to 168. The town then consisted of seven streets, the names of which are mentioned in documents from about 1300. These streets survive in the modern plan of the town, though they have been much widened. Important buildings were constructed throughout this period, including the castle, the Chapel of St Mary del Key, St Nicholas, and the Tower (op cit, 7).

1.2.2 The town was positioned next to the Pool, a prominent topographical feature and natural inlet; the place-name 'Liverpool' being derived from the Pool. The Pool lay south of a ridge of sandstone, overlain by boulder clay, and the ancient shore-line was along the line of The Strand. It was a natural tidal inlet or creek fed by streams arising further north, and was nearly 1.5km long at high tide (Stewart-Brown 1932, 88). The study area includes the major part of the mouth of this former tidal creek.

1.2.3 The Old Dock (1710-1826): in 1707, the scheme was finally mooted for an enclosed wet dock, and in November 1708, the Town Council formally requested the two MPs to commission an appropriate person to 'draw a plan of the intended dock' (Ritchie-Noakes 1984). In 1709, the first Dock Act was passed, empowering the Mayor, Aldermen, Bailiffs, and Common Council as the trustees of the dock and allowing them to levy dock dues on ships entering the harbour. The construction of the dock was not without financial difficulties; the scheme was financed on the back of heavy borrowing, no one made a profit on the dock construction, and the dock was not fully finished until seven years after the act of 1709 (op cit, 9). The man appointed to build the dock, Thomas Steers, began work in May 1710. The construction of the dock was a formidable task, particularly as it was built entirely by hand; the building work had to be undertaken in a sea-lake whose coffer-dam was constantly hammered by tidal currents, and from water flowing down into the Pool from the streams off the high ground of Mosslake (MacLeod 1982, 12).

1.2.4 The dock was completed in 1716 but had been opened the previous year. One of the major advance of the new dock was that ships could now unload in one and a half days, rather than the 12 to 14 days which it had previously taken, reducing the cost of handling cargo compared to other ports (MacLeod 1982, 13). The impact of the opening of the Old Dock was immense; Chester, Bristol and London are all documented to have lost significant trade throughout the eighteenth century as a result of its opening (MacLeod 1982, 14). Liverpool developed into a major city of commerce, particularly in the valuable commodity of tobacco, and became the second greatest seaport in the kingdom; the number of seamen working from the port trebled, the number of ships it owned trebled, and the tonnage of ships entering the port increased by a factor of ten (ibid). The position of the port meant that Liverpool was convenient for the slave trade, forming the apex of the slave trading triangle between Africa and the West Indies and North America; by 1792, the port possessed over half of the English slave trade, and just under half of the European slave trade traffic (ibid). With the decline of slavery in the early 1800s (the last slave-ship leaving the port in 1807 - ibid), Liverpool began exploitation of the next commercial venture - the cotton industry. Liverpool became an important source for cotton, located as it was adjacent to the cotton and textile mills of Lancashire; raw cotton was imported and manufactured produce was exported in equal measure.

The prominence of the town led to Liverpool's continued commercial prosperity and expansion in the eighteenth and nineteenth centuries.

- 1.2.5 George's Dock: the Old Dock was such a success that it spawned further enclosed docks, including South Dock in 1753 (Fig 4) and Salterhouse Dock in 1760 (Jones 1996, 111). George's Dock was built under the 1761 Dock Act that commissioned a dock to be built north of Canning Dock, approximately where the Three Graces stand at present (Fig 11). The dock begun in 1762 endured some early rebuilding which resulted from storm damage but was completed by 1771. It was named after King George III in whose reign it was built. In 1825 it was repaired, and considerably enlarged. It was infilled in the early twentieth century and now lies beneath the Liver, Cunard and Port of Liverpool buildings on the Pierhead. St George's Basin was constructed in conjunction with the George's Dock, and extended west from the northern entrance of the main dock connecting it to the Mersey. The basin was infilled in 1872 and a floating roadway, to provide vehicular access down to the ferry terminal, was established within it; however, this structure is no longer extant.
- 1.2.6 Manchester Dock: the Manchester Dock (Figs 5-11), was constructed and opened by 1785-9 for the purpose of harbouring the Mersey Flats, barges and lighters which were flat bottomed barges used for 'lightening' other ships loads or loading and unloading ships that could not be wharfed / docked (Jones 1996). The vessels were mostly transferring coal, corn and cotton between the Manchester area and markets and imported sources. By 1815 the dock was about an acre in size and could apparently contend with the loading and unloading of up to 33 vessels per day. The quayside area of the dock saw numerous sheds and warehouses built immediately adjacent, and partly overhanging, in order to house the goods during transshipment. This was particularly evident later in the nineteenth century when the North Western and Great Western Railway companies became involved, and both leased and built structures specific to their requirements for coal haulage (Anderson 1996). The gradual change in transport systems from canals, to railways to roads led to the decline of the use of Manchester Dock and it was closed in 1928 and infilled by 1936. The dock was infilled using spoil from the Mersey Tunnel excavations.
- 1.2.8 Chester Basin: the Chester Basin (Figs 6-11), was constructed between 1785 and 1795 to meet the need for increased moorings for inland vessels with destinations in Cheshire, Lancashire and the Midlands and using the Shropshire Union canal, also opened in 1795. The basin was tidal and measured approximately 2 500 square yards. However the same shift in transport modes and the obstruction of the ferries arriving at the landing stage just north lead to the closure and infilling of the basin at the same time as the Manchester Dock (Jarvis 1996).
- 1.2.9 Associated Buildings: warehouses were present in Liverpool prior to the construction of the Old Dock but flourished after its construction and the increasing amount of trade coming into the city. Warehouses in the eighteenth century were often associated with or attached to the owner's dwelling. The warehouses were often between five and ten storeys in height, with gabled fronts, and long and narrow in plan. Distinctively they often had a central pulley below the gabled roof and the loading doors for each floor positioned below this (Giles 2004). The same form continued through the nineteenth century as well. Such features are still visible within the central area of Liverpool today and the later warehouses had further design refinements including loading doors recessed into the walls for better safety.

1.3 PREVIOUS WORK

- 1.3.1 Previous archaeological work within the proposed development area include assessments have been carried out on Chavasse Park (Philpott 1999) the Old Dock (MacLeod 1982) and the Pier Head (Wardell Armstrong 2003). The only below ground investigations to have taken place, until the recent evaluation of the Old Dock in 2001, were two areas investigated between 1976 and 1977. The 1976 trench (30m x 16m) was located just north of the present Law Courts, revealing a sequence of deposits which included seventeenth century features cut into the geology; eighteenth century market remains; eighteenth century levelling; nineteenth century drainage, and road surfaces. The 1977 trench measured 30.3m x 13.5m and encountered mid-late seventeenth century deposits and a possible revetment wall; eighteenth to nineteenth century drainage features, walls and floors; and twentieth century features and debris. It was noted that while work was being carried out on the Law Courts site in 1977 a well, cutting the geology and containing a good finds assemblage, was uncovered.

- 1.3.2 OA North (formerly Lancaster University Archaeological Unit) undertook a programme of evaluation of the Old Dock, targeting the documented line of the dock edge in 2001 (OA North 2001). Three trenches were excavated on the north side and four trenches on the south side of the dock. In all but one the dock was identified and revealed to be in good condition, with brick facing and sandstone kerb stones. The maximum depth of this trenching revealed that the wall extended below 6m from the modern surface. Against the northern side of the dock wall organic deposits were discovered but further investigation was prevented because of chemical contamination. More recent investigation in 2004 has revealed further evidence pertaining to the Old Dock.
- 1.3.3 A major programme of work has been undertaken as part of the Paradise Street development exploring the quay side and also further explorations of the Old Dock. A further programme of work was undertaken by OA North on the west side of the Strand in advance of the then proposed Merseyside Tramline, which recorded the Old Dock and also substantial elements of Canning Dock. In September and November 2004 two evaluation trenches were opened in an area adjacent to the south-east corner of Canning Dock, where a section of sandstone wall had been identified in an earlier test pit (OA North 2005). The top of the wall was identified at a depth of 1.5m from the surface and although excavation proceeded to a depth of 3.8m below ground level, the bottom of the wall was not reached. The construction date and function of this wall remain enigmatic but could relate to the draining and infilling of the Old Dock prior to the construction of the New Customs House in 1826.
- 1.3.4 Further archaeological work undertaken in advance of the Liverpool Canal Link included the instrument survey of the east facing elevation of the Canning Dock wall at the point of entry for the new canal.
- 1.3.5 A programme of evaluation has been undertaken and reported on by OA North, in June/July 2006, on the site of the proposed canal link, and has identified the remains of St Georges Basin, Chester Dock and the Manchester Dock (OA North 2006a).
- 1.4 OXFORD ARCHAEOLOGY NORTH
- 1.4.1 Oxford Archaeology North has over 30 years of experience in professional archaeology, and can provide a professional and cost-effective service. We are the largest employer of archaeologists in the country (we currently have more than 200 members of staff) and can thus deploy considerable resources with extensive experience to deal with any archaeological obligations you or your clients may have. We have offices in Lancaster and Oxford, trading as Oxford Archaeology North (OA North), and Oxford Archaeology (OA) respectively, enabling us to provide a truly nationwide service. OA is an Institute of Field Archaeologists Registered Organisation (No 17), and is thus bound by the IFA's Code of Conduct and required to apply the IFA's quality standards.
- 1.4.2 Given the geographical location of Liverpool, it is intended to co-ordinate the project from our northern office in Lancaster, though the project team will use the most appropriate resources from both offices. Between our two offices our company has unrivalled experience of working on post-medieval sites, and is recognised as one of the leading archaeological units in the country with regard to dealing with large-scale archaeological projects. OA North has considerable experience of the assessment, evaluation and excavation of sites of all periods, and has particular experience of archaeology in the North West having undertaken in recent years excavation, survey, building recording and post-excavation projects in both urban and rural environments. Watching briefs, evaluations and excavations have taken place within the planning process, to fulfil the requirements of clients and planning authorities, to very rigorous timetables.
- 1.4.3 In particular OA North has been involved in the archaeological investigations at Canning Place, Liverpool, since 2001, and has recently completed the field work of a further phase of evaluation/excavation on the Old Dock, Chavasse park and Canning Dock areas. OA North has undertaken all the work on the Old Dock as part of the Paradise Street Development, as well as the Merseytram investigations. This has entailed a massive programme of open area excavation, and in addition OA North has undertaken extensive building surveys of warehouses within the extent of the Paradise Street development.
- 1.4.4 OA North has undertaken the programme of archaeological evaluation in advance of the Liverpool Link on behalf of British Waterways. The archaeological programme has exposed and recorded the docks for St Georges Basin, Chester Dock and the Manchester Dock (OA North 2006a). In addition

to this a further programme of evaluation was undertaken by OA North on an adjacent area in advance of the proposed Mann Island retail development (OA North 2006b).

2. AIMS AND OBJECTIVES

2.1 OBJECTIVES

2.2.1 Previous excavations, evaluations and the assessments have demonstrated that within the docklands of Liverpool there is the potential for archaeological deposits and structures to survive from the post-medieval period. Areas of potentially significant archaeology have been highlighted and such sites are subject to evaluation.

2.2.2 The proposal for the development is to incorporate pile foundations which would have the potential to severely disturb buried structures and there is a need to evaluate the below ground survival in advance of the establishment of the foundations.

2.2.1 George's Ferry Basin: cartographic analysis shows that the proposed new terminal is for the most part to the north of George's Baths; however there is the possibility that it will have some impact on the baths. It is though seemingly on the site of the former Georges Ferry Basin, first shown on Sherwood's 1821 map and which had been backfilled by the time of the 1908 OS map. There is also the possibility that it will impact on the pier seen on the 1893 map. The key aims of the proposed evaluation are to investigate the survival of this small dock, and identify any remains possibly relating to it, the baths and the pier. Consequently the objectives of the present project are as follows:

- to establish the presence or absence of archaeological remains within the identified area. In particular it will establish if there is any survival of George's Ferry Basin, Georges' Baths or the pier,
- to determine the extent, nature, character, quality and date of any archaeological remains present, and in particular will establish the condition of the dock walls,
- to establish any ecofactual and environmental potential of archaeological deposits and features,
- to make an assessment of the impact of the scheme on any significant remains or deposits encountered,
- where possible implement a programme of mitigation recording in advance of construction works, should this be achievable.

2.2.4 To these ends it will be necessary to assess the thickness, depth and depositional history of any significant archaeological structures and/or deposits. However, it is anticipated that the dock structures could extend to a depth of 7-9m, but in this instance it is proposed to only excavate to a depth of 2.5m. The nature of the main stratigraphical units encountered will be characterised in terms of their physical composition (stone, gravel, organic materials etc) and their archaeological formation (primary deposits, secondary deposits etc). This will entail excavation to the top of significant archaeology, together with localised sondages to explore in more detail the archaeological stratigraphy. The work will involve the collection of all kinds of stratified artefactual evidence (including pottery, brick tile, stone, glass, metal, bone, small finds, industrial residues etc), and ecofactual and environmental evidence (including animal bone, human bone, plant remains, pollen, peat, charcoal, molluscs, soils etc).

3. METHOD STATEMENT

3.1 GENERAL

3.1.1 In order to investigate the location and extent of George's Ferry Basin, and the possible remains of George's Baths and pier, it is proposed to excavate a single trench diagonally, north/south, across the extent of the new build. It is anticipated that this may cut across the eastern side of the ferry basin and allow investigation of both the quay side and dock side of the wall. The trench will be 35m long, and will need to be excavated to a depth of at least 2.5m. This will mean that the trench will need to be stepped in sufficiently to obviate any risk of trench collapse, and the trench width at the top will be c 4m across to allow for the steps. A price is quoted for this trench and also a cost per

square metre of trench if it is decided to extend the trench. The evaluation programme is intended to inform the requirements for any further mitigation. At present the Shanghai Palace restaurant is on the site, so the evaluation will need to follow on after its demolition.

3.2 EVALUATION METHODOLOGY

- 3.2.1 Fieldwork Methodology: the single diagonal trench will target areas of archaeological sensitivity and accurately record the location, extent, and character of any surviving archaeological features and/or deposits.
- 3.2.2 Prior to any ground disturbance the extent of the trenches will be appropriately fenced to allow safe working. The areas of work will be recorded, by digital photograph prior to any work to help in any required reinstatement after the archaeological investigation. The overburden will be excavated by the lead contractor, who will also undertake the reinstatement.
- 3.2.3 Once the trench locations have been established the topsoil/surfaces and any obvious overburden deposits will be removed mechanically. Machine stripping of trenches will be undertaken using a 360o mechanical excavator (provided by the main contractor) fitted with an appropriately sized toothless ditching bucket. The work will be constantly supervised by a suitably experienced archaeologist. Machine excavation will then be used to define carefully the extent of any surviving walls and other remains. Thereafter, structural remains will be cleaned manually to define their extent, nature, form and, where possible, date. Spoil will be retained on site and stockpiled at a safe distance from the evaluation trench (a horizontal distance equivalent of the depth of excavation).
- 3.2.4 The advance archaeological recording works will be undertaken to sufficient depth in order to establish the character and where possible preserve by record the archaeological remains. If a depth of greater than 1.2m is required then it is proposed to step in the trenches to reduce the risk of trench collapse. If this is not possible then it is proposed to shore the trenches. The shoring may comprise acroprops supporting small metal trench sheets or box shoring. Once in place, the acroprops / box shoring will limit any mechanical excavation and will constrain manual excavation. The shoring will be provided by the main contractor, to include insertion and maintenance throughout the work on site.
- 3.2.5 Work may involve cleaning features by hand, using either hoes, shovel scraping, and/or trowels depending on the subsoil conditions and the extent of features. Following this, the accurate recording of all archaeological features and horizons, and any artefacts, identified during observation will take place. Recording will comprise a full description and preliminary classification of features or materials revealed. In normal circumstances, field recording will also include a continual process of analysis, evaluation, and interpretation of the data, in order to establish the necessity for any further more detailed recording that may prove essential.
- 3.2.6 Any significant features will be sample excavated (ie. selected pits and postholes will normally only be half-sectioned, linear features will be subject to no more than a 10% sample, and extensive layers will, where possible, be sampled by partial rather than complete removal). The aim of any manual excavation will be to determine the date, condition, form and function of the archaeological remains, sufficiently to allow a confident interpretation and a realistic record to be produced of any elements to be damaged during the works. It is intended that the exposed sections of walls are recorded as comprehensively as possible, both in plan and elevation, at this stage. Although it is intended that mitigation recording of the principle structures be undertaken as much as possible at this stage it is accepted that in some cases the majority of the recording works will be undertaken during construction. The aim of the exercise is to evaluate and mitigate in key areas which are available for inspection.
- 3.2.7 Written Record: archaeological stratigraphy will be recorded using pro-forma context sheets which are in accordance with those used by English Heritage. These provide an objective and systematic description of archaeological remains. Similar object record and photographic record pro-formas will be used. All written records of survey data, contexts, artefacts and ecofacts will be cross-referenced from pro-forma record sheets using sequential numbering. The contextual details will be incorporated into a Harris matrix essentially hand-drawn on site for checking purposes but which is normally generated during the post-excavation phase of the project using specially designed Arched version 2 matrix generation software.

- 3.2.8 Drawn Record: any deposits or features will be accurately located, either independently or on drawings provided by the client. The archaeological remains will, where necessary, be planned and vertical sections or elevations produced. This will be done either manually or digitally, depending on circumstances. For example any intricate features will require manually planning but larger, more simplistic areas may be more effectively and rapidly recorded using survey equipment. Any features that require planning will be done so accurately, at appropriate scales (ranging from 1:10 to 1:50) and annotated. The structural detail will be recorded using a survey instrument with respect to survey control established by ARUP.
- 3.2.9 Photographic Record: a full and detailed photographic record of individual contexts will be maintained and similarly general views from standard view-points of the overall site at all stages of the evaluation will be generated. Photography will be undertaken using 35mm cameras on achievable black and white print film. Extensive use of digital photography will also be undertaken throughout the course of the fieldwork for presentation purposes. Photographic records will be maintained on special photographic pro-forma sheets.
- 3.2.10 Finds Record: finds recovery and sampling programmes will be in accordance with current best practice (following IFA and other specialist guidelines). All finds will be treated in accordance with OA North standard practice, which is cognisant of IFA and UKIC Guidelines. In general this will mean that (where appropriate or safe to do so) finds are washed, dried, marked, bagged and packed in stable conditions; no attempt at conservation will be made unless special circumstances require prompt action. In such a case guidance and/or expertise will be sought from a suitably qualified conservator.
- 3.2.11 Neither artefacts nor ecofacts will be collected systematically during the mechanical excavation of overburden unless significant deposits, for example pottery or clay tobacco pipe waster dumps, are encountered. Other finds recovered during the removal of overburden will be retained only if of significance to the dating and/or interpretation of the site or specific features.
- 3.2.12 Subsequent to the removal of overburden artefacts and ecofacts will be collected and handled as per best practice. Material will aim to be collected and identified by stratigraphic unit. Hand collection by stratigraphic unit will be the principal method of collection. The material which is envisaged to be collected will include; ceramic objects, animal bone, glass, metal - both as objects and potentially slag.
- 3.2.13 Any waterlogged finds will be treated as necessary to ensure their continued survival. In the case of large deposits of waterlogged environmental material (eg unmodified wood) discussion will be sought with the client and archaeological curator with regard to an appropriate sampling strategy.
- 3.2.14 Any gold and silver artefacts recovered during the course of the excavation will be removed to a safe place and reported to the local Coroner according to the procedures relating to the Treasure Act, 1996/7.
- 3.2.15 The recovery of human remains is not anticipated, but if encountered they will, if possible, be left in situ covered and protected. If removal is necessary, then the relevant Home Office permission will be sought, and the removal of such remains will be carried out with due care and sensitivity as required by the Burials Act 1857.
- 3.2.16 Environmental samples (bulk samples of 30-40 litres volume, to be sub-sampled at a later stage) will be collected from suitable deposits (i.e. the deposits are reasonably well dated and are from contexts the derivation of which can be understood with a degree of confidence). Samples will be collected for technological, pedological and chronological analysis as appropriate.
- 3.3 OTHER MATTERS: WELFARE AND FACILITIES
- 3.3.1 Access to the site will be arranged via the client/main contractor. The main contractor for the archaeological works, will be responsible for the provision of a secure enclosed area for the archaeological work to take place within.
- 3.3.2 The client/main contractor is asked to provide OA North with information relating to the position of live services on the site. Identification of services will be established by the main contractor in advance of any machine excavation. It is hoped that all non-essential services could be either turned off or capped in some fashion.

3.3.3 Plant hire and shoring will be provided by the principle contractor on behalf of OA North, site reinstatement will also be dealt with by the principal contractor.

3.4 HEALTH AND SAFETY

3.4.1 The main site contractor, will have overall responsibility for health and safety on site. However, OA has its own Health and Safety policy and OA will work closely with the main contractor to ensure that safety standards are met. A risk assessment will be prepared by OA North in advance of all stages of field work. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (3rd Edition, 1997). OA North will liaise with the client/main contractor to ensure all health and safety regulations are met. In instances of confined spaces, competent, trained staff will be used.

3.4.2 OA North has professional indemnity to a value of £2,000,000, employer's liability cover to a value of £15,000,000. Written details of insurance cover can be provided if required.

3.4.3 Normal OA North working hours are between 9.00 am and 5.00 pm, Monday to Friday, though adjustments to hours may be made to maximise daylight working time in winter and to meet travel requirements. It is not normal practice for OA North staff to be asked to work weekends or bank holidays and should the client require such time to be worked during the course of a project a contract variation to cover additional costs will be necessary.

3.5 REPORT PRODUCTION

3.5.1 Archive: the results of the fieldwork will form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (The Management of Archaeological Projects, 2nd edition, 1991) and the Guidelines for the Preparation of Excavation Archives for Long Term Storage (UKIC 1990). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. The deposition of a properly ordered and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the IFA in that organisation's code of conduct.

3.5.2 The paper and finds archive for the archaeological work undertaken at the site will be deposited with National Museums Liverpool as this is the nearest museum which meets Museums' and Galleries' Commission criteria for the long term storage of archaeological material (MGC 1992). This archive can be provided in the English Heritage Centre for Archaeology format, both as hard and digital copy. The archive will be deposited with National Museums Liverpool within six months of the completion of the fieldwork.

3.5.3 Except for items subject to the Treasure Act, all artefacts found during the course of the project will be donated to the receiving museum with the permission of the relevant landowners.

3.5.4 A synthesis (in the form of the index to the archive and a copy of the publication report) will be deposited with the Merseyside Historic Environment Record. A copy of the index to the archive will also be available for deposition in the National Archaeological Record in Swindon/London.

3.5.5 Report: a short report indicating the main findings of the evaluation will be prepared within two weeks of the completion of all fieldwork. The main purposes of this report will be;

- To outline the results; including summary of the site's histories, illustrations and a catalogue of artefacts recovered,
- Indicate the importance of the remains,
- Aid in the engineering design process,
- Suggest any mitigation measures which may be possible.

3.5.6 In addition, three copies of a bound and collated final report will be submitted to the client within ten weeks of the completion of all the fieldwork relating to archaeological work in advance of the construction of the terminal building. Further copies will be sent to the Merseyside Archaeologist, the Merseyside Historic Environment Record, and National Museums Liverpool. The final report will include a copy of this project design, and indications of any agreed departure from that design. It will include an historical and archaeological background to the study area, an outline

methodology of the investigation, and present, summarise, assess, and interpret the results of the programme of archaeological works detailed above. The report will also include a complete bibliography of sources from which data has been derived, and a list of further sources identified during the programme of work, but not examined in detail. The report will include a description of the methodology and the results. It will have a list of the finds, and a description of the collective assemblage. Recommendations for any further mitigation works and details of the final deposition of the project archive will also be made.

3.5.7 Illustrative material will include a location map, site map, a trench location map, trench plans, survey maps, and also pertinent photographs. It can be tailored to the specific requests of the client (eg particular scales etc), subject to discussion.

3.5.8 Confidentiality: the final report is designed as a document for the specific use of the client, and should be treated as such; it is not suitable for publication as an academic report, or otherwise, without amendment or revision. Any requirement to revise or reorder the material for submission or presentation to third parties beyond the project brief and project design, or for any other explicit purpose, can be fulfilled, but will require separate discussion and funding.

4. STAFFING

4.1 The project will be under the direct management of Jamie Quartermaine BA Hons Surv Dip, MIFA (Project Manager) to whom all correspondence should be addressed.

4.2 It is anticipated that the project would be led by Caroline Raynor who will be directing the evaluation and reporting elements of the project.

4.3 Assessment of the finds from the evaluation will be undertaken by OA North's in-house finds specialist Christine Howard-Davis BA, MIFA (OA North project officer). Christine acts as OA North's in-house finds specialist and has extensive knowledge of all finds of all periods from archaeological sites in northern England. However, she has specialist knowledge regarding Roman glass, metalwork, and leather, the recording and management of waterlogged wood, and most aspects of wetland and environmental archaeology.

4.4 Assessment of any palaeoenvironmental samples which may be taken will be undertaken by Elizabeth Huckerby MSc (OA North project officer). Elizabeth has extensive knowledge of the palaeoecology of the North West through her work on the English Heritage-funded North West Wetlands Survey.

5. INSURANCE

5.1 OA North has a professional indemnity cover to a value of £2,000,000; proof of which can be supplied as required.

6. MONITORING

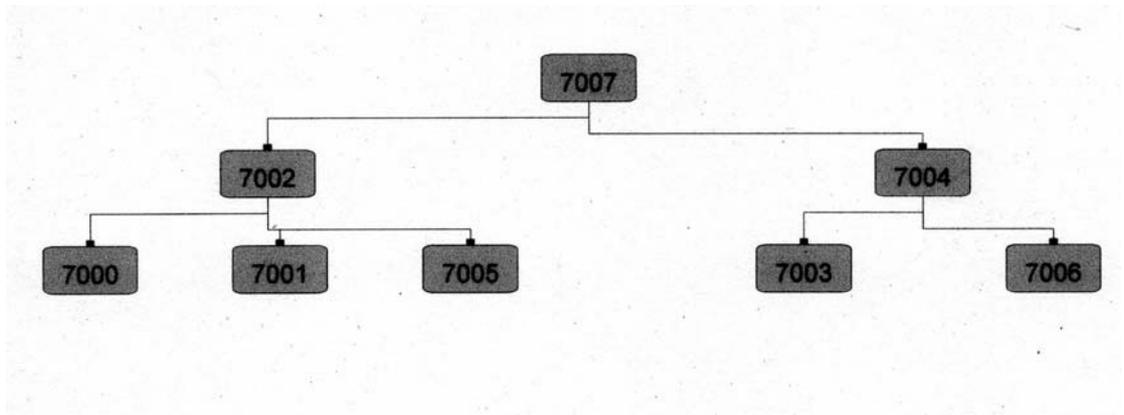
6.1 Monitoring of the project will be undertaken by the Merseyside Archaeologist, Sarah Jane Farr.

6.2 Access to the site for monitoring purposes will be afforded to the Merseyside Archaeologist at all times. Resources have been allocated for at least one site meeting between all interested parties to review the archaeological work.

APPENDIX 2: CONTEXT LIST

Context Number	Description
<i>7000</i>	Wall – George’s Ferry Basin
<i>7001</i>	Foundation – footing for span to landing stage
<i>7002</i>	Deposit – backfill
<i>7003</i>	Wall – brick, George’s Baths
<i>7004</i>	Deposit – backfill
<i>7005</i>	Culvert – brick
<i>7006</i>	Wall – brick
<i>7007</i>	Deposit – modern concrete

APPENDIX 3: STRATIGRAPHIC RECORD



Harris matrix showing stratigraphy

APPENDIX 4: FINDS CATALOGUE

Context	OR	Material	Category	No	Description	Date
7002	11412	Ceramic	vessel	3	Body fragments, Black-glazed redware. Heavily laminated fabric.	Nineteenth century or later
7002	11412	Ceramic	vessel	1	Body fragment self-glazed redware. Heavily laminated fabric.	Nineteenth century or later
7002	11412	Ceramic	vessel	3	Base, Pearlware.	Later eighteenth-early nineteenth century
7002	11412	Ceramic	vessel	1	Body fragment blue and white underglaze transfer-printed white earthenware.	Late eighteenth century or later
7002	11412	Ceramic	vessel	2	Base, white earthenware, refired.	Nineteenth century or later
7002	11412	Ceramic	vessel	2	Base ? Creamware, refired	Later eighteenth-early nineteenth century
7002	11412	Ceramic	vessel	2	Plate rim, white earthenware, blue feather-edge decoration	Later eighteenth-early nineteenth century
7004	11415	Ceramic	vessel	1	Body fragment, white earthenware.	Nineteenth century or later
7004	11415	Ceramic	vessel	1	Body fragment blue and white underglaze transfer-printed white earthenware.	Late eighteenth century or later
7004	11415	Ceramic	vessel	1	Body fragment blue and white underglaze transfer-printed Pearlware.	Later eighteenth-early nineteenth century
7004	11415	Ceramic	vessel	1	Small body fragment hand-painted white earthenware.	Nineteenth century or later

ILLUSTRATIONS

FIGURES

- Figure 1: Site Location
- Figure 2: Locations of principle eighteenth and early nineteenth century docks
(after Belchem 2006)
- Figure 3: Previous Archaeological Works
- Figure 4: Ferry Terminal - detail of excavation
- Figure 5: Excavation features overlain on the 1:2500 Ordnance Survey Map, 1893

PLATES

- Plate 1: 1829 watercolour of George's Baths by Robert Wallis
- Plate 2: 1907 watercolour of George's Baths by Arthur Cox
- Plate 3: Southern wall of George's Ferry Basin (**7000**), looking east
- Plate 4: Iron supports for the pier footing (**7001**), looking south
- Plate 5: Elevation view of wall **7000**, the rear face of George's Ferry Basin south wall, looking north
- Plate 6: View of landing stage foundation **7001**, and culvert **7005**, looking west
- Plate 7: Brick culvert **7005**, looking east
- Plate 8: Plan view of wall **7003**, the northern wall of George's Baths, looking south

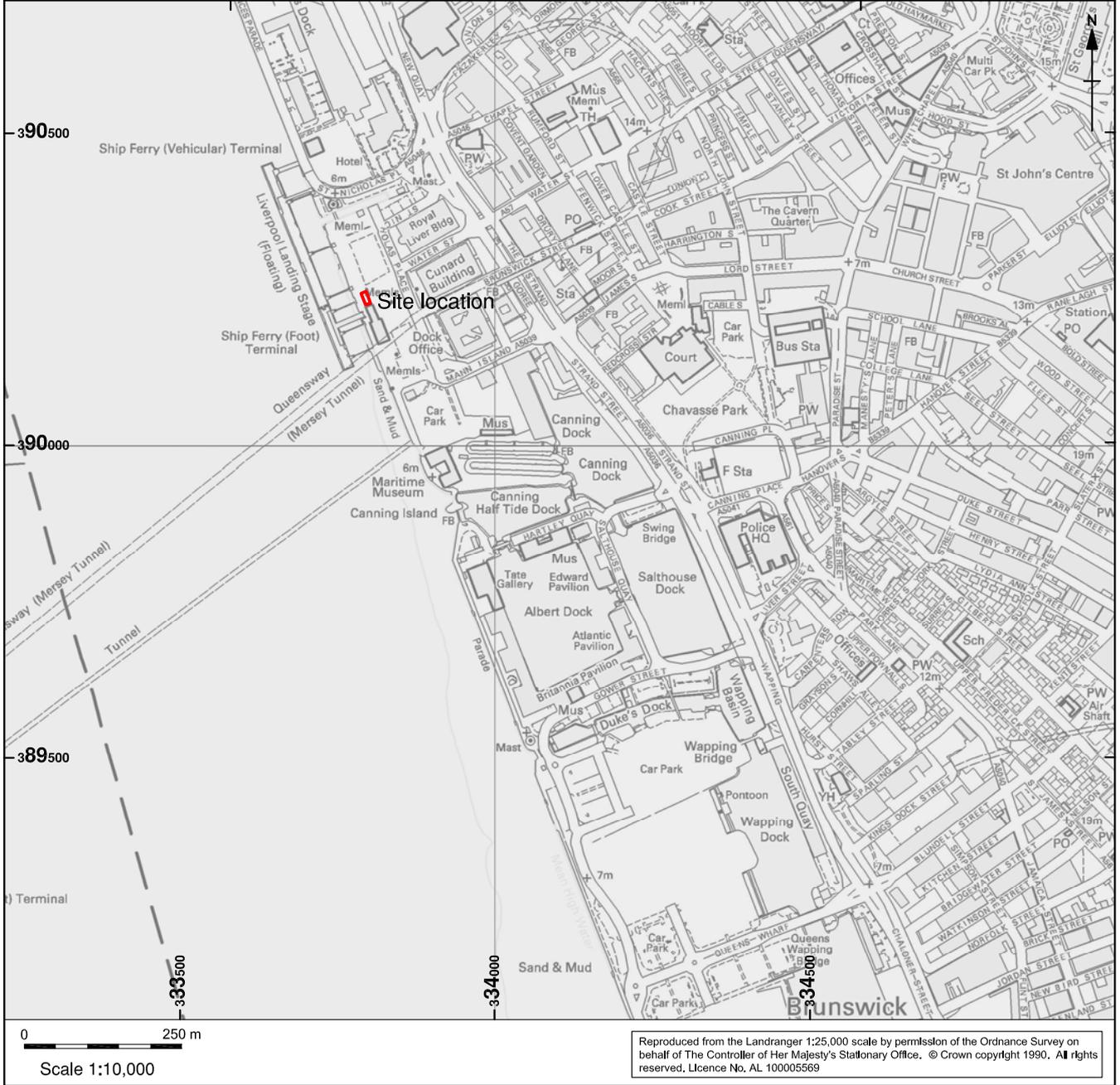


Figure 1: Site location

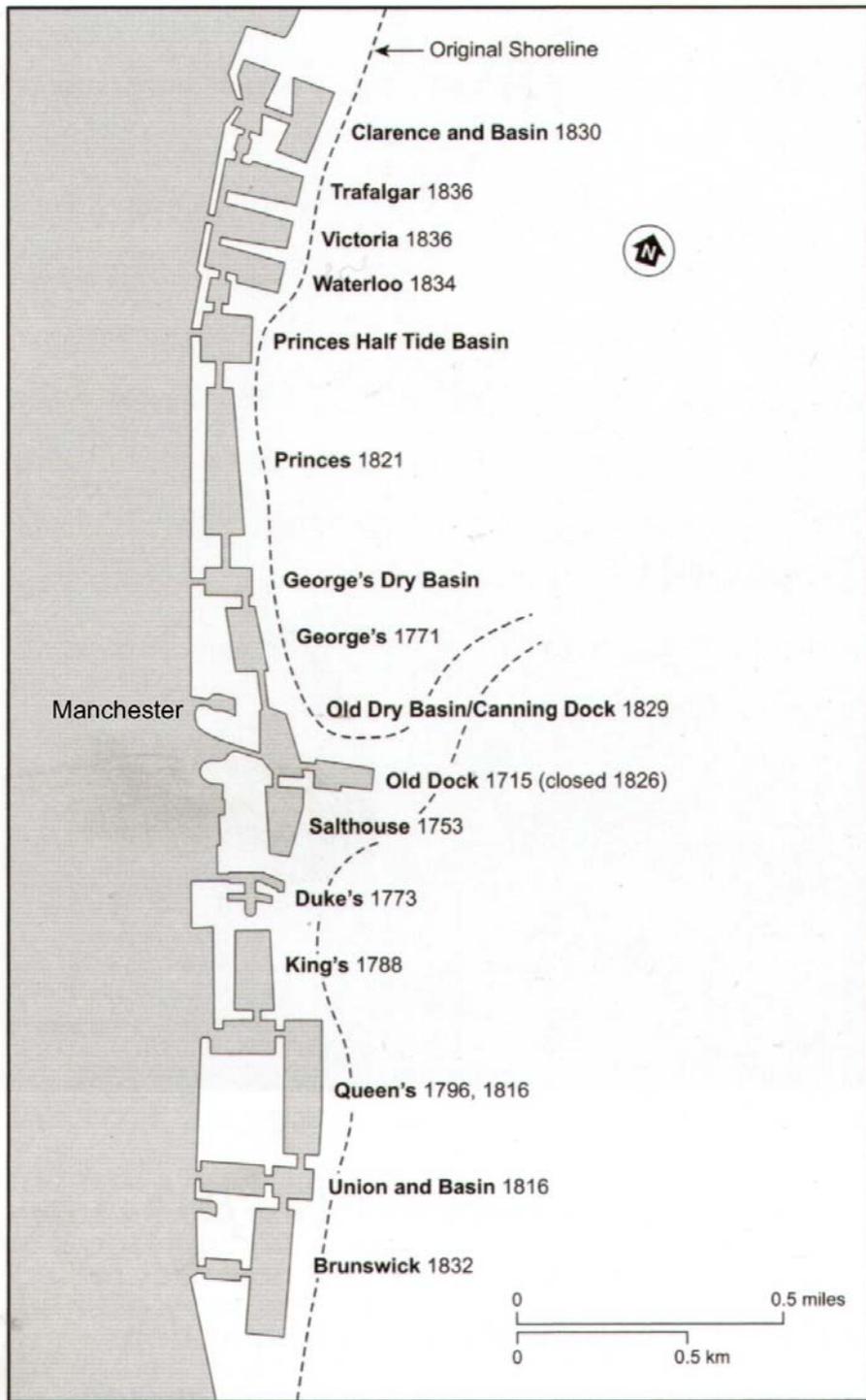


Fig 2: Locations of principle eighteenth and early nineteenth century docks (after Belchem 2006)

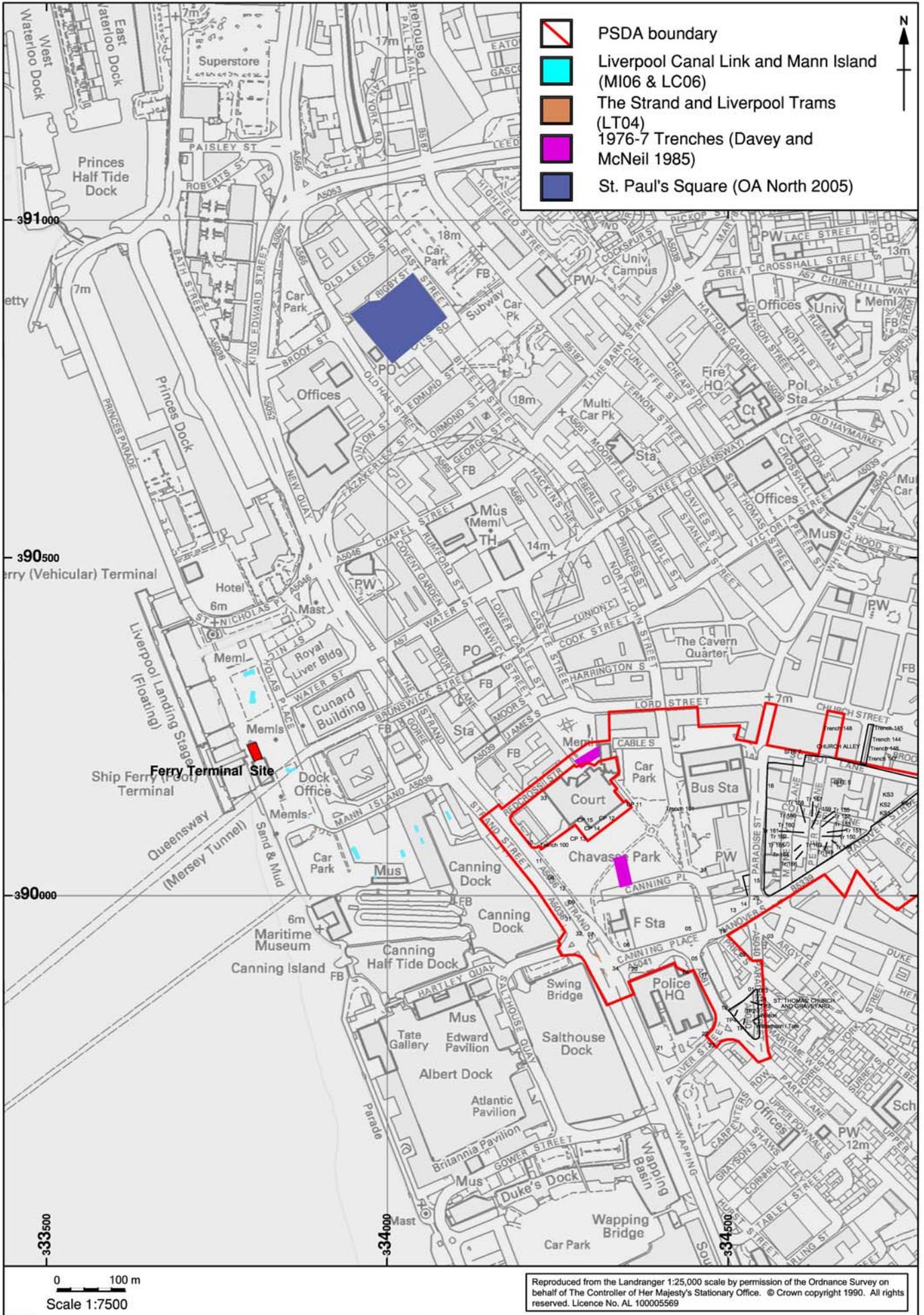


Figure 3: Previous archaeological works

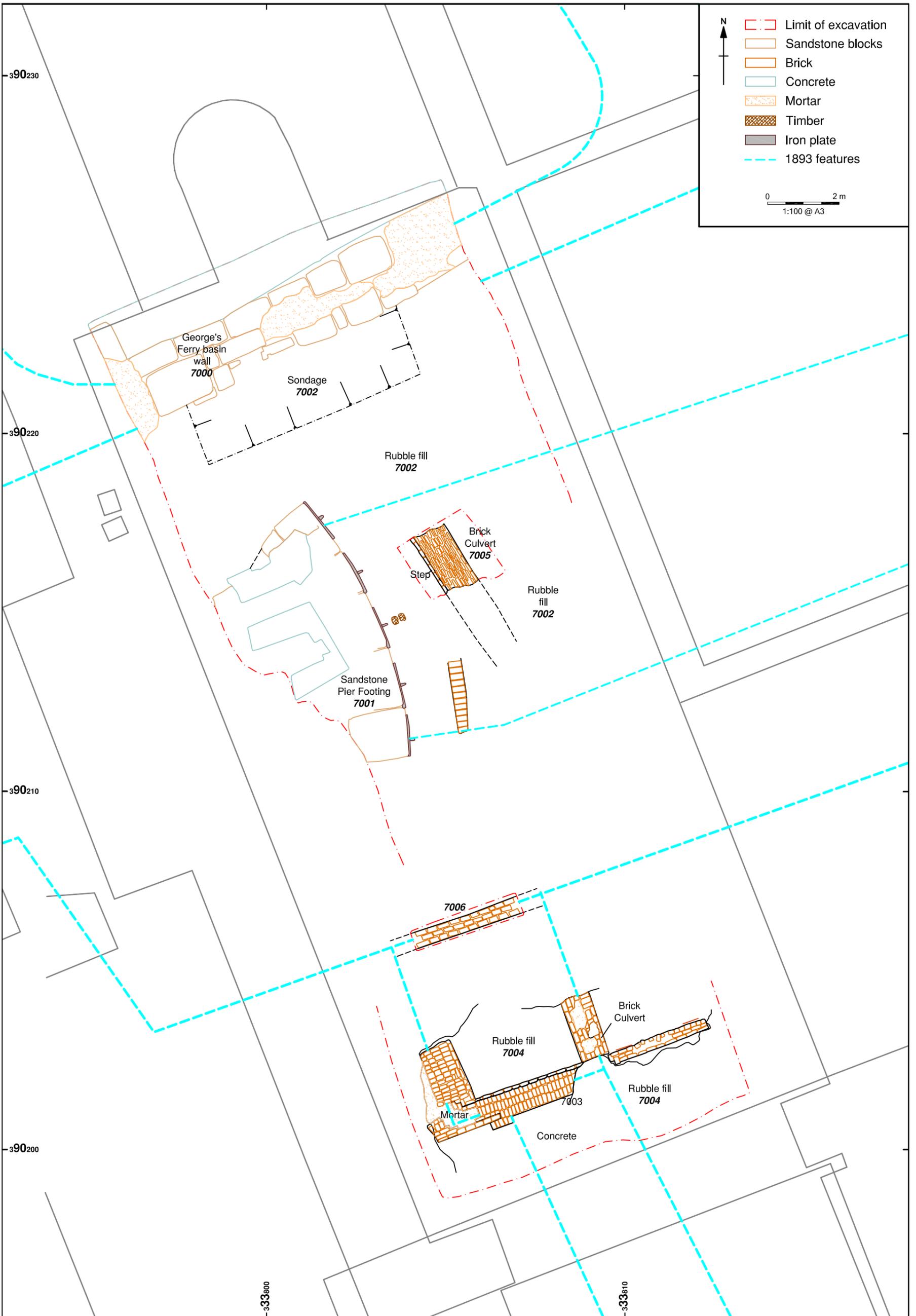


Figure 4: Ferry Terminal - detail of excavation

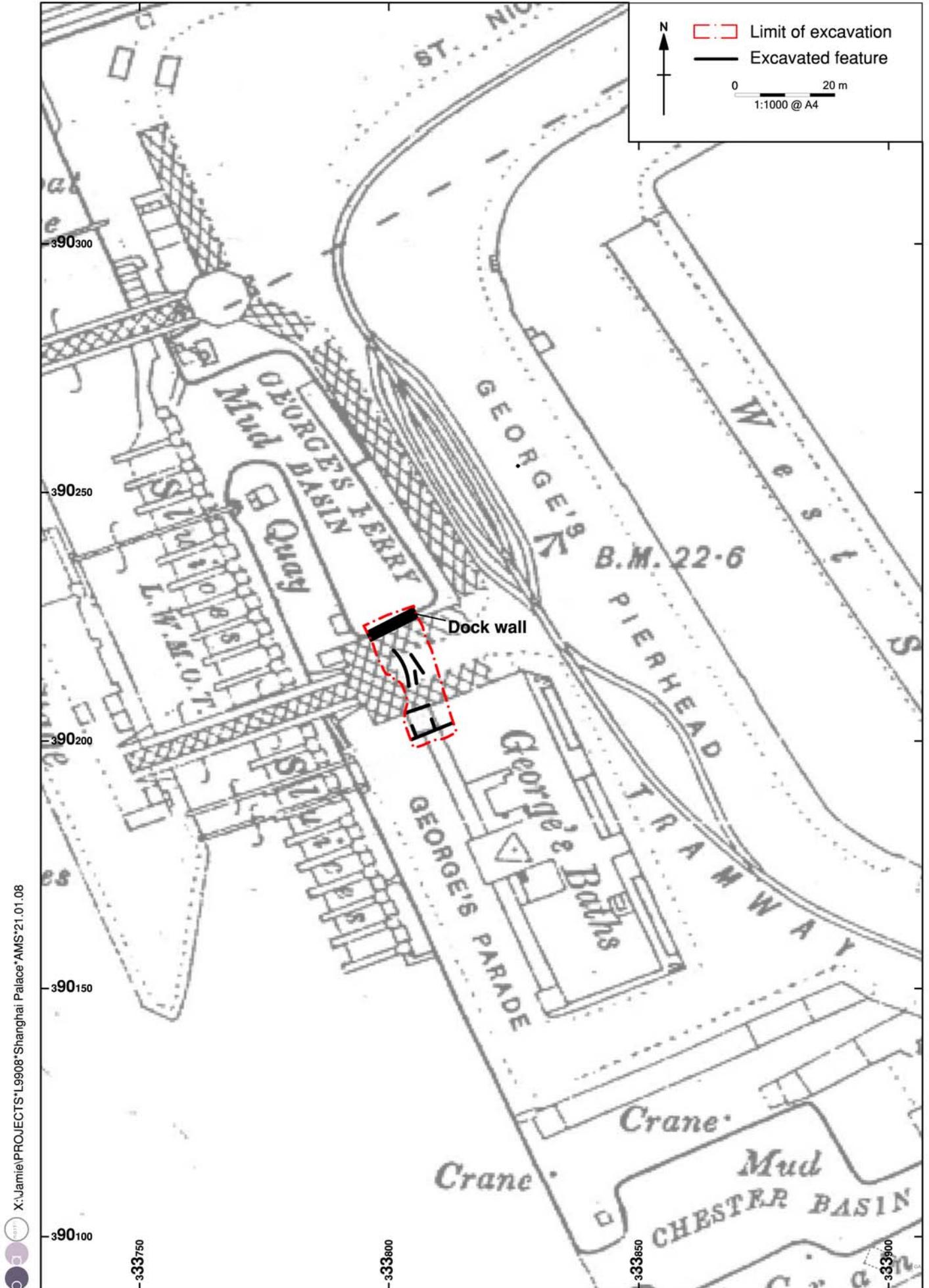


Figure 5: Excavation features overlain on the 1:2500 Ordnance Survey map, 1893



Plate 1: 1829 watercolour of George's Bath by Robert Wallis



Plate 2: 1907 watercolour of George's Baths by Arthur Cox



Plate 3: Southern wall of George's Ferry Basin (7000), looking east



Plate 4: Iron supports for the pier footing (7001), looking south



Plate 5: Elevation view of wall **7000**, the rear face of George's Ferry Basin south wall, looking north



Plate 6: A view of landing stage foundation **7001** and culvert **7005**, looking west



Plate 7: Brick culvert *7005*, looking east



Plate 8: Plan view of wall *7003*, the northern wall of George's Baths, looking south