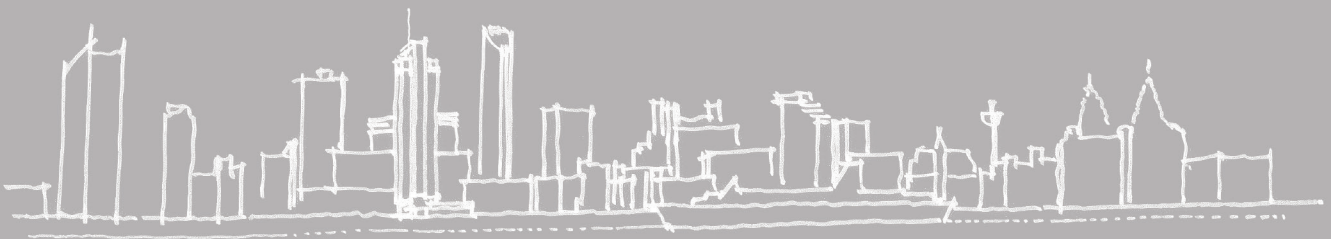




# PRINCES REACH, PRINCES DOCK

## ARCHAEOLOGICAL STATEMENT

June 2016



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## **1. Executive Summary**

- 1.1 This Archaeological Statement has been compiled in support of a full detailed planning application for a residential development on vacant brownfield land, William Jessop Way, Princes Dock, Liverpool (c SJ NGR 337 907), here in after referred to as the Site. It considers the archaeological potential of the site, the significance of heritage assets of archaeological interest and potential impact that the development might have.
- 1.2 The Site is located over the original early nineteenth century Princes Dock wall, associated operational transit sheds and dock railway. Archaeological watching brief recording during ground investigations (engineering constraint investigations) also located possible evidence relating to the late eighteenth century sea walls constructed prior to Princes Dock. It is considered that possible minor negative impacts on the dock wall can be minimized and mitigated through appropriate design informed by fuller future archaeological investigations of its survival, along with the other heritage assets, prior to the commencement of Site development.

## **2. Introduction**

- 2.1 This Archaeological Statement has been compiled in support of a full detailed planning application to erect a circa 34 storey residential tower (Use Class C3) comprising circa 304 private rented sector apartments and 40 car parking spaces, 8 motorcycle parking spaces, 76 cycle parking spaces and, plant, storage, reception and recreation areas and hard and soft landscaping on vacant brownfield land, William Jessop Way, Princes Dock, Liverpool, L3 1QP (NGR SJ337 907).
- 2.2 The Site is a stand alone full detailed application that lies within the context of the wider Liverpool Waters site, which has outline consent for mixed-use development. As such, consideration has been given to the extant planning permission and relevant planning conditions in order to ensure conformity with the Liverpool Waters framework and obligations (LPA: 100/2424).
- 2.3 This report considers the archaeological potential of the site, the significance of heritage assets of archaeological interest and potential impact that the development might have. A complimentary Heritage Statement provides an assessment of relevant designated heritage assets, including the neighboring conservation areas and listed buildings, along with undesignated assets such as the historic surfaces, and their overall historic context.
- 2.4 Due acknowledgement and thanks are given to the Merseyside Historic Environment Record (Sefton Council) for prompt data supply and National Museums Liverpool (NML) for assistance and access to Mersey Docks and Harbour Board Archive and Merseyside Maritime Museum Archives (NML).
- 2.5 The report has been compiled for Moda Living Ltd by Sarah-Jane Farr MCIfA, Archaeological Consultant.

## **3. Site Location and Description**

- 3.1 The Site is located on vacant land at Princes Dock, William Jessop Way, Liverpool, L3 1QP at NGR SJ337907 (Easting 333734 Northing 390789). The Site consists of 2,430 square metres of previously developed land adjacent to Princes Dock. It lies to the north of an existing multi-storey car park adjacent to the dock boundary wall at Bath Street and east of William Jessop Way. The site is approximately at a height of between +7.59mOD and +7.05mOD; at the west of the Site, the land slopes to a level of +6.65mOD at the rear of the footpath along William Jessop Way (Arup, April 2016).
- 3.2 Geologically, the site is underlain by Chester Pebble Beds Formation (sandstone, pebbly, [gravelly]); the surface geology is Superficial Tidal Flat Deposits – clay, silty, sandy (British Geological Survey, BGS web April 2016)

## **4 Methodology**

### **4.1 Scope**

This report has been compiled through:

- Review of the baseline archaeological documentation available for the proposed application site and GIS ‘Archaeological Deposit Model’, as included in the 100/2424 Liverpool Waters Outline Consent, November 2011.
- A search of: the Merseyside Historic Environment Record to check/update the aforementioned baseline archaeological information for the application site; Mersey Docks and Harbour Board archive for Princes Dock, held by National Museums Liverpool (NML) and a visit to Merseyside Maritime Museum Archives (NML).
- Review of the results of an archaeological Watching Brief commissioned by the Client and undertaken during ground investigation works carried out for engineering purposes.
- Site visits on 09.02.2016 and 03.03.2016.

### **4.2 Assessment Methodology**

- 4.2.1 Local planning authorities (LPAs) require an applicant to provide assessment of the significance of any heritage assets affected by a proposal, including any contribution made by their setting.
- 4.2.2 The importance/sensitivity of some heritage assets is formally recognised through designation. Where assets have not been statutorily designated, the assessment of the significance and value of the heritage asset has been considered using professional judgment with reference to national published guidance and in accordance with the policies stated within the National Planning Policy Framework (NPPF, DCLG 2012) and the related guidance Planning Practice Guide (DCLG).
- 4.2.3 Further information and advice is available in the Historic England’s historic environment good practice advice in planning notes: Note 1 - The Historic Environment in Local Plans; Note 2 - Managing Significance in Decision-Taking in the Historic Environment & Note 3 - The Setting of Heritage Assets (Historic England, March 2015).
- 4.2.4 Guidance provided by English Heritage (Conservation Principles, 2008) introduced the concept of values when weighing the significance of heritage assets with reference to the following value criteria: evidential, historical aesthetic and communal. The ‘evidential’ value is derived from the potential of a place to yield evidence about past human activity and most readily corresponds to heritage assets of archaeological interest as identified in the National Planning Policy Framework (NPPF).
- 4.2.5 The Site is outside the Liverpool Maritime Mercantile City World Heritage Site, but lies within the Buffer Zone. World Heritage Sites are defined as designated heritage assets in the National Planning Policy Framework. The

assessment methodology uses that within the ICOMOS, Guidance on Heritage Impact Assessment for Cultural World Heritage Site properties (2011)

- 4.2.6 This Archaeology Statement assesses the nature and significance heritage assets of archaeological interest at the Site along with the potential impact of development at the Site.

## 5. Archaeological Planning Context

- 5.1 **The Ancient Monuments and Archaeological Areas Act 1979** is the central piece of legislation which protects the archaeological resource. The first section of the Act requires the Secretary of State for National Heritage to maintain a schedule of nationally important sites. A set of criteria, defined as survival/condition, period, rarity, fragility/vulnerability, diversity, documentation, group value and potential, assist in the decision making process as to whether an asset is deemed of national importance and best managed by scheduling.
- 5.2 **The National Planning Policy Framework (DCLG 2012)** defines the policies for conserving and enhancing the historic environment and heritage assets. It sets out the importance of being able to assess the significance of heritage assets that may be affected by a development. Significance is defined in Annex 2 as being the, *'value of an asset to this and future generations because of its heritage interest. This interest may be archaeological, architectural, artistic or historic interest.'*
- 5.3 The definition of significance provided in Annex 2 also clearly states that significance is not only derived from an asset's physical presence, but also from its setting. The setting of a heritage asset is defined in Annex 2 as, *'the surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve.'*
- 5.4 Paragraphs 128 and 129 of the NPPF state that when determining applications, local authorities should require an applicant to describe the significance of assets that may be affected by a development, to a level of detail that is proportionate to their importance and that is no more than sufficient to understand the potential impact on their significance; this should also include assets where their setting may be affected by a proposal.
- 5.5 With regard to development sites where there are known heritage assets, or there is potential for heritage assets with archaeological interest, paragraph 128 of the NPPF directs local planning authorities to require developers to submit an appropriate desk-based assessment and, where necessary, field evaluation.
- 5.6 Paragraph 132 recognises that heritage assets are irreplaceable and that where proposed development may impact on the significance of designated heritage assets, great weight should be placed on its conservation. The NPPF notes that

alteration or destruction of a heritage asset or development within its setting can harm its significance.

- 5.7 Paragraph 132 further recognises that substantial harm or loss of heritage assets of the highest significance for example scheduled monuments, registered battlefields, grade I and II\* listed buildings and registered parks and gardens and World Heritage Sites should be wholly exceptional.
- 5.8 The NPPF recognises that a balance needs to be struck between the preservation of the significance of a heritage asset and delivering public benefit. Paragraph 133 sets out considerations to be taken into account when determining a planning application, which would result in substantial harm or total loss of significance of a designated heritage asset. It states that the local planning authority should weigh the public benefits of the proposed development against any harm, and in cases where it cannot be demonstrated that substantial harm or total loss is not outweighed by the public benefit, it directs the local planning authority to refuse consent.
- 5.9 The NPPF also clearly states that the effect of a planning application on non-designated heritage assets should be taken into account when considering the application. Paragraph 135 sets out the need for a balanced judgment between the significance of the heritage assets and the scale of any harm or loss, when considering assets directly or indirectly affected by proposed development.
- 5.10 At paragraph 139 the NPPF recognises that non-designated heritage assets of archaeological interest may be of equivalent significance to a scheduled monument. In such cases the NPPF directs that such assets are to be considered subject to the policies for designated assets
- 5.11 Paragraph 141 states that local authorities should require developers to record and advance understanding of those heritage assets which will be lost (wholly or in part) and make the information publicly available (i.e. in Historic Environment Records and in museum archives).
- 5.12 **Liverpool Unitary Development Plan (2002) Policy HD17: Protection of Archaeological Remains** - sets out Liverpool City Council policy for dealing with heritage assets of archaeological interest.

1. The Council will seek to protect other sites of archaeological importance. Where development is proposed in areas of known or suspected archaeological importance the City Council will require that:

- (i) developers have the archaeological implications of their proposals assessed by a recognised archaeological body at an early stage and the results submitted as part of the planning application;
- (ii) important archaeological remains and their settings are permanently preserved in situ;
- (iii) where in situ preservation is not justified and disturbance by development is acceptable in principle, the applicants undertake an agreed programme of mitigation including investigation, excavation and recording before development begins, or as specified in the agreed programme; and

(iv) conflicts regarding archaeological issues and development pressures are resolved by means of management agreements.

2. The City Council will continue to support the Merseyside Sites and Monuments Record held by the National Museums and Galleries on Merseyside, to ensure that archaeological evidence, both above and below ground is properly identified, recorded and protected.

- 5.13 **Liverpool World Heritage Site Supplementary Planning Document (SPD, 2009)** – provides detailed guidance for new development, regeneration and conservation in the WHS and its Buffer Zone. It supplements the existing "saved" UDP, and will deal with the management of the site, acting as a guide to future development in and around the site and embodying the principles in the existing WHS Management Plan.
- 5.14 Sec 5.7 Archaeology - describes archaeological remains associated with the WHS, as an important non-renewable and finite resource, some of which are potentially of national importance. The archaeological remains of historic docks and other port related structures are potentially of outstanding universal value. Stating that the City Council considers that the entirety of the WHS is an area of suspected archaeological importance under the terms of UDP policy HD17: all developments in the WHS will therefore need to follow the guidance set out in Policy HD17 i, ii, iii and iv.
- 5.15 The SPD reinforces, Objective 7.1 of the WHS Management Plan, which establishes the Council's aspiration to secure the interpretation of the archaeological resource of the WHS, for it to be presented and transmitted to future generations. It outlines the possible nature of pre- and post-determination of archaeological investigations including. It outlines the possible requirements of interpret the archaeological remains in an appropriate manner e.g. in the design of the public realm, through permanent exposure, interpretation boards or by contributions to a wider interpretation strategy.



## **6. Historical and Archaeological Background**

### **6.1 Overview**

- 6.1.1 The development of Liverpool from small fishing port to a city of massive international significance was largely prompted by the construction of the docks. Initially, Liverpool failed to develop significantly between the twelfth and seventeenth centuries as there was no established safe way of negotiating the river Mersey and putting into port. Liverpool Castle (former site now occupied by the Liverpool Crown Courts) stood on a promontory overlooking the river and guarding the entrance to a sea-lake known as the pool. The construction of a wet dock within the confines of ‘the pool’ was completed in 1715. Thomas Steers, an engineer with previous experience of dock construction at Rotherhithe on the Thames was contracted to design and oversee the construction.
- 6.1.2 Steers’ Dock (now known as Old Dock) was built directly on the bedrock of the pool (where the bedrock was too deep, it is likely that a series of timber piles were erected to support the wall). The walls were constructed of hand made red brick and capped with yellow sandstone coping stones (as found during extensive archaeological excavations at the site of the Old Dock and Liverpool One development between 2001 and 2006). Following the successful construction and opening of Thomas Steers Old Dock in 1715, a programme of land reclamation, sea wall and dock construction set a precedent for the continuous expansion and development of Liverpool’s waterfront through a series of ingenious engineering feats which would radically alter the face of Liverpool and its place on the world stage in the nineteenth century.
- 6.1.3 Liverpool gradually began to shape the waterfront and create the area known today as Pier Head. Land was reclaimed using waste material obtained from local industry including, but not limited to, pottery production, quarry waste and organic waste generated by butchers, tanners etc. who operated along the waterfront in areas such as Bird Street and Strand Street. By 1750 the land reclamation had successfully created a new strip of land known as Nova Scotia (the current area of Mann Island), which was quickly built upon and contained a variety of buildings including single room dwellings for the workforce, and pubs and hostels, along with two slip ways (all attested by archaeological excavations between 2006 and 2008 in advance of the Mann Island mixed use scheme). Further land reclamation in a westwards direction between 1771 and 1785 necessitated the construction of two further sea walls and the Old Quay, which was later superseded by the Manchester Basin (latterly the Manchester Dock, itself subject to archaeological excavations in 2007 in advance of the construction of the Museum of Liverpool).
- 6.1.4 Excavation and cartographic evidence supports the fact that the development of the Pier Head followed on from the development of Mann Island and Nova Scotia with a succession of sea walls preceding the reclamation of land into useful waterside properties. The majority of land in this area was constructed

from quarry waste, including crushed pink and yellow sandstone material interspersed with discrete dumps of pottery and other cultural material representing industry occurring elsewhere in the city centre (OA North 2014). Temporary retaining walls were found during the excavation for sections LCL5 and LCL6 (Pier Head) of the new Liverpool Canal Link in 2007 (ibid). These structures comprised massive hewn blocks of sandstone (frequently recycled from other sources as evidenced by architectural components present in the walls) with dry stone wall-style construction. None of the temporary works walls were ever found to contain evidence of a mortar bond, and both stood to a height in excess of 6m. It is likely that the recycled masonry in the wall identified within section LCL5 (adjacent to Georges Sluice) originally came from the second Town Hall, which was built in 1673 but demolished and replaced by the current Town Hall between 1749 and 1754.

- 6.1.5 The full extent of the retaining walls was not established due to the formation of the canal excavation, however they are a clear indicator of the fact that some of Liverpool's earliest waterfront features still remain buried and relatively undamaged beneath the modern ground surface, despite the radical changes that have taken place on the waterfront in the last 250 years.
- 6.1.6 Documentary and archaeological evidence from Liverpool's waterfront excavations indicates that yellow sandstone was used in dock/basin wall and permanent river wall construction from the 1730's to the 19<sup>th</sup> century. The walls were prone to failure, possibly due to the use of dry-stone construction or inferior bonding mortar or inadequate foundations. This yellow sandstone, from the Brownlow Hill area of Liverpool, was friable and comparatively soft compared to the pink sandstone from Runcorn quarries, which was used in the early 19<sup>th</sup> century by John Foster, dock engineer. This pink sandstone was used up to the late 1820's (along with the yellow sandstone, which was used to construct the core, and also face the waterside and elevations, of river and dock walls (OA North 2014, 221).

## **6.2 Princes Dock**

- 6.2.1 More fully outlined in the accompanying Heritage Statement, the following summary highlights key stages in the development of Princes Dock. The construction of the Princes Dock represented the first substantial expansion of Liverpool's closed dock system that had been created in the late 18th century. Designs by J Rennie in 1810 were executed by J Foster who completed the works in 1821. The dock was the first in Liverpool to have a boundary wall and the construction was remarkable for the use of steam power and an iron railway to help remove spoil. Until 1832 it was the largest dock in Liverpool and was intended to be a flagship for Liverpool's trade with North America for imported cotton and for emigration.
- 6.2.2 Works associated with dock construction/ preparation commenced in 1810, being sufficiently advanced in 1813 to start building the dock perimeter wall along the east side and the last of the tenants on the west side of Bath Street given notice to quick to enable completion of the east side of the perimeter

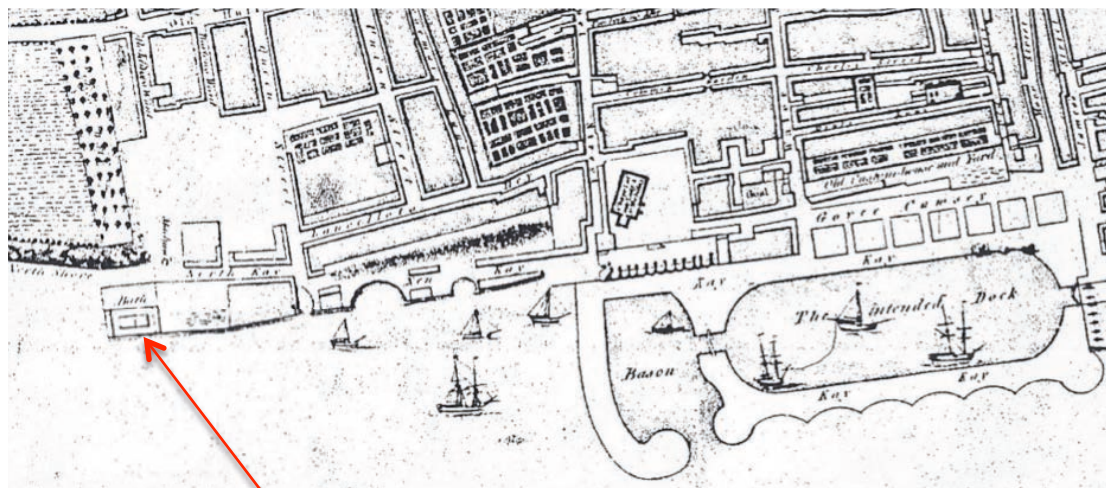
wall in December 1813 (Jarvis, 1991, 19). Constructed in red sandstone from Runcorn quarries, the dock had a lock at the southern end connecting it with Georges Dock, and at the northern end was a second lock leading to the Princes Dock Basin, which provided access to the Mersey.

- 6.2.3 A series of transit sheds and offices stood on the east side of the dock. Archaeological excavation by Oxford Archaeology North in 2007-08 in the southern area of Princes Dock showed that despite the transitory nature of these structures, they were furnished with substantial foundations and associated crane bases. A fire in 1894 destroyed 47 feet of the east sheds, which were subsequently repaired. Previously 'open' sheds, they were fitted with sliding doors in 1889 and asphalt trackways laid over the former sets (Jarvis 1991, 46). In 1905 the whole west side of the original water area of the Princes Dock was altered by the introduction of a concrete quayside structure complete with sheds. Improvements were not implemented at the east. However, in 1929 construction work began on new sheds at the east, which entailed constructing piles immediately inside the dock wall upon which the shed decking floors were laid (ibid). This provided a specialised facility for coastal trade with an emphasis on Irish traffic.
- 6.2.4 As early as 1860, the soft sandstone coping stones of the east dock wall of the dock had become so worn that they had to be taken down and replaced in granite (Jarvis, 1991, 39). Princes Basin (at the north of Princes Dock) was remodeled in 1868 and in 1873 G F Lyster (Dock Engineer and Jessie Hartley's successor) infilled the Georges Dock Basin which allowed the construction of a long floating roadway that led down to the Floating Landing Stage, a wooden and iron pontoon that served the ferries and cross river traffic. Eventually the landing stage was extended to 2,500 feet, running from the Pier Head northwards the full length of the Princes Dock, and becoming the embarkation point for transatlantic passenger liners. In 1895 Riverside Station was opened on the west side of the dock, bringing main line passengers right down to the river's edge, with covered bridges leading directly to the floating landing stage at two levels.
- 6.2.5 After its closure in 1981, Princes Dock was regarded as a potential area for new office development, and following the preparation of a masterplan in 1992 the first phase of development at the southern end commenced. The transit sheds and other dock buildings were cleared, the east quay was widened to create larger development sites, and the dock walls were partly rebuilt. A revised masterplan prepared in 1998 provided a framework for the remainder of the site, including road access and the partial infilling of the dock. Further revisions were made in 2002, when a greater mix of uses was approved, higher development densities and indicative heights for each development plot. A new footbridge across the dock was constructed in 2001, lifted to accommodate the passage of canal boats. Alterations were made to the north and south walls for the canal link, which opened in 2009.

### 6.3 The changing landscape

The development of the pre-dock landscape is shown in a series of pre-Ordnance Survey maps.

(See Appendix 1: Gazetteer location plan and Appendix 2: Gazetteer of sites)



John Eyes 1765

The site of the 'Baths' (Bath House Site **38**) represents the extent of reclamation at the North Shore/'North Key' by 1765 (the land immediately to the north, for which the Princes Reach development is proposed, does not exist by this date). Eyes' map features the conjectured sea wall and edge of the as yet unconstructed dock basin (Site **31**) that would accompany George's Dock, which is marked as 'The Intended Dock.'



George Perry 1769

By 1769 further reclamation and consolidation is shown at 'New Key' and additional development adjacent to 'The Baths' (Site **38**). The North Pier of the new Dry Dock is named along with the New Dock to the south (George's

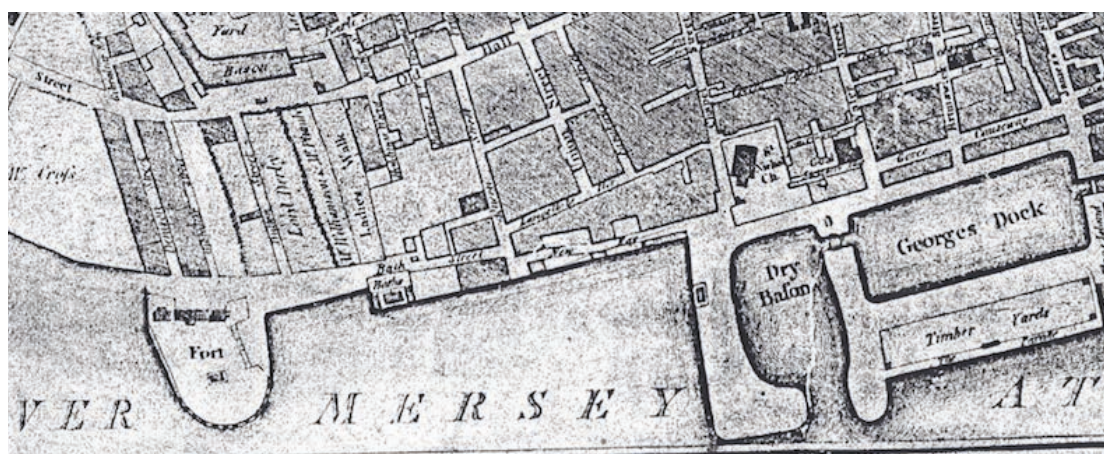


Dock). Mr Dutton's Boat Yard (Site **34**) is named along with Mr Brooks Brick Yard (Site **40**) indicating the types of edge of town industrial activity.



Charles Eyes 1785

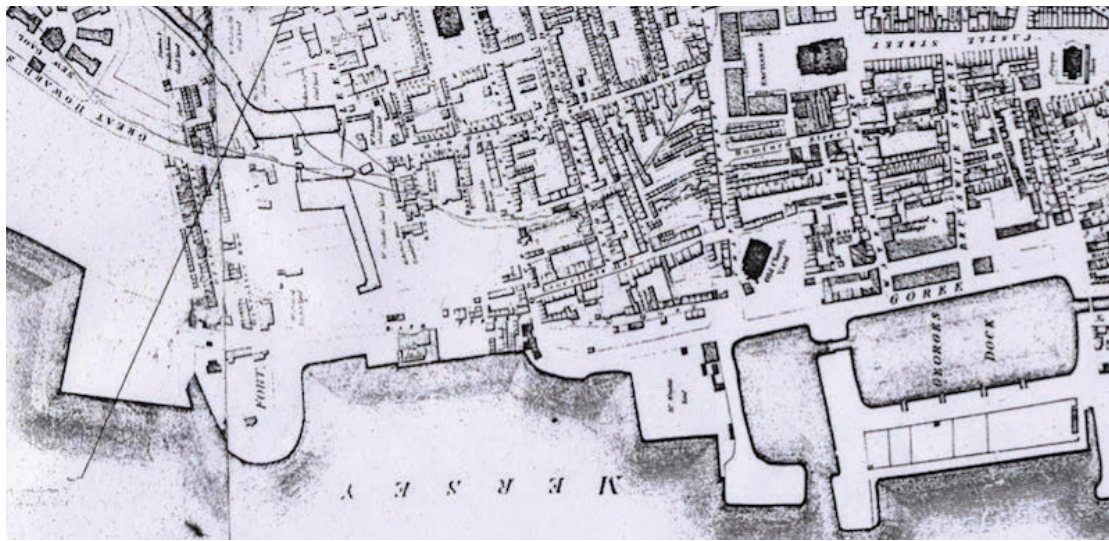
Eyes' map of 1785 shows a substantial series of newly constructed sea walls (Site **44**) and reclaimed land to the north of the Baths, which contains the site of the Fort (Site **36**). Additional reclamation evidences the early development of land at the 'Dry Bason' (George's Basin, Site **31**) and George's Dock, which is the site of the existing Pier Head. The north-eastern side of the town was occupied by the newly constructed Leeds and Liverpool Canal, which terminated in a small basin.



John Gore 1796

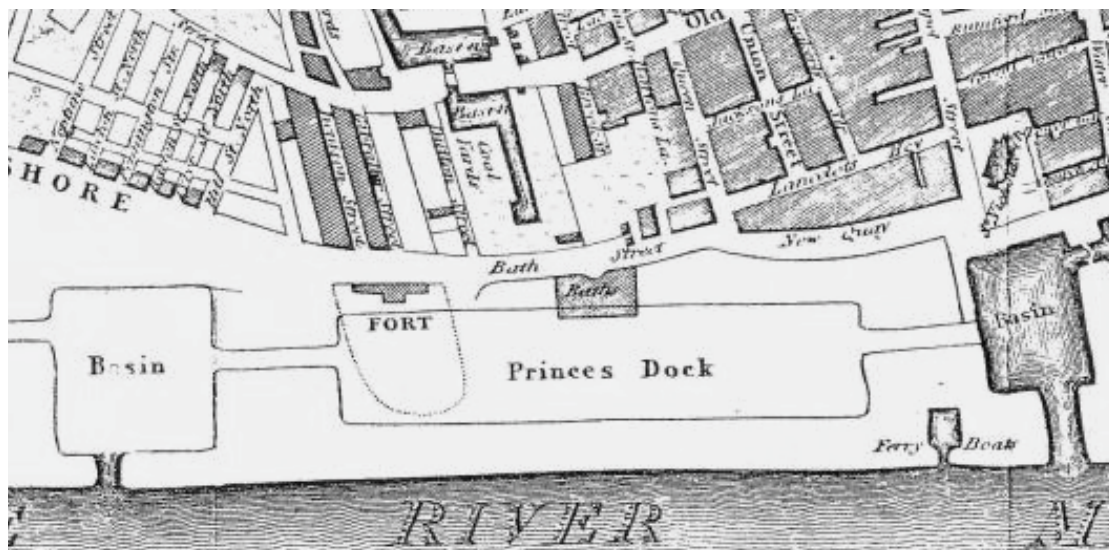
Gore's map shows increased land reclamation at George's Dock. The area is defined by an increasingly lengthy section of sea wall running east-west (Site **20**) to the north of the 'Dry Bason'; the land between this and the Fort marking the location of the future Princes Dock (Site **16**). Small built structures appear along the edge of the newly reclaimed waterfront at Bath Street.





Horwood 1803

By 1803 further reclamation has increased land mass to the north of George's Basin (includes Sea Wall Site 19) and further along the shore immediately to the north of the baths (Site 38) and Fort (Site 36). The land to the east of Bath Street continues to develop with additional structures and streets, principally warehouses, and small businesses which developed in tandem with the growth of the docks. This map was the first to depict the addition of Clarke's Basin (Site 32) and, an associated coal yard, to the southern end of the Leeds and Liverpool Canal.

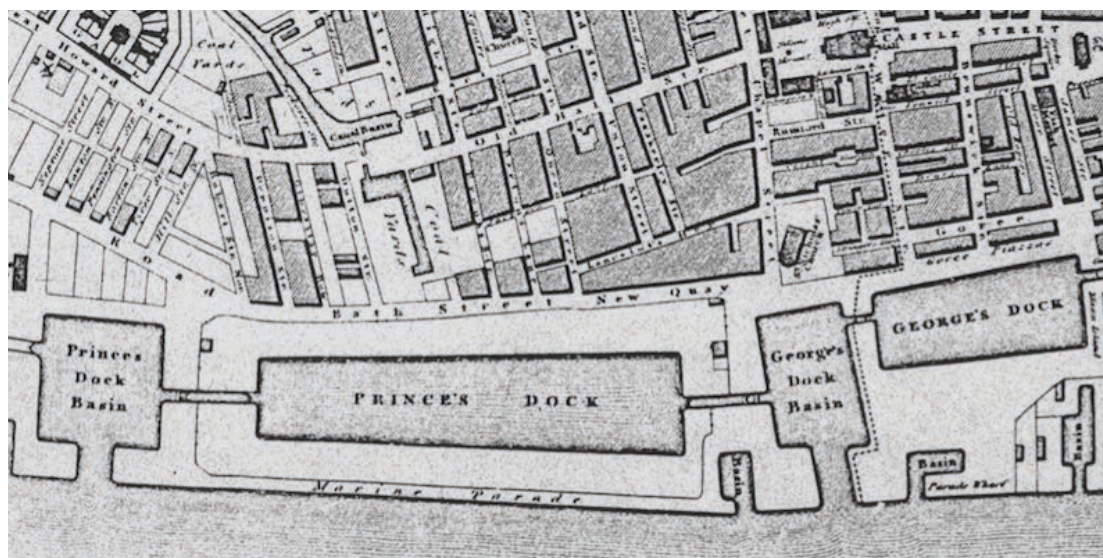


Thomas Kaye 1810

Thomas Kaye 1810 (Plan of Liverpool) shows the land reclaimed with new sea wall forming the westward phase of land reclamation complete to the

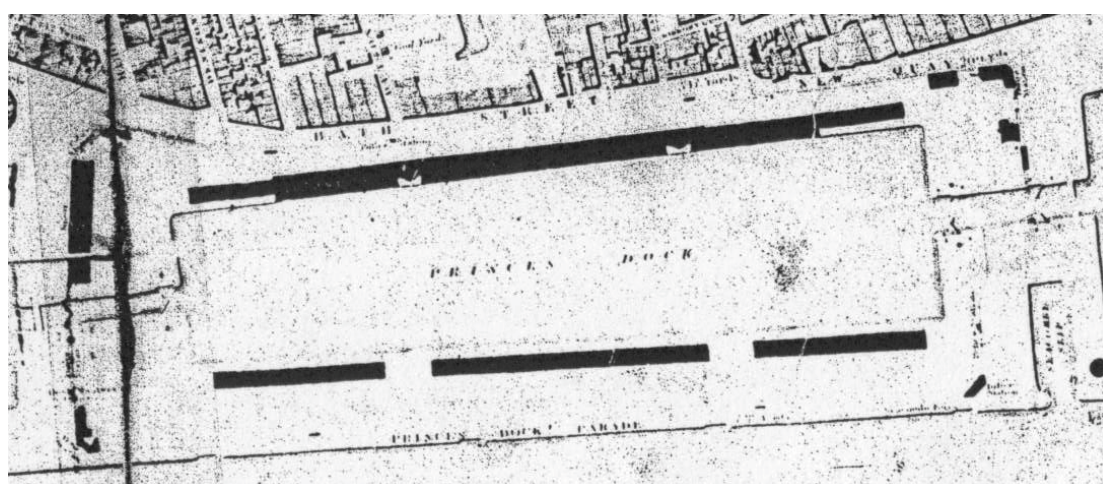


extent it remains to the present day. The site of Princes Dock (Site **16**) is laid out over the Fort and bath house indicating their survival at this date and gradual absorption during ongoing dock construction. The map also shows the proposed 'Basin' (Site **37**), which will accompany the Princes Dock and a link to George's Dock Basin at the south (Site **31**). A small basin 'Ferry Boats' has been opened at the sea front (Site **33**) and the sea wall (Site **18**) has been established (or is in progress by now).



WS Sherwood 1821

Princes Dock was completed and opened in 1821. Three small buildings are shown around the perimeter of the Princes Dock Boundary wall (Site **17**). These are probably gatehouses and an early tidewaters office within the walled complex. The western sea front is named 'Marine Parade.'



Gage 1836

By 1836 a series of transit sheds have been constructed around the east (Site **24**), the original single transit shed on the west side of the Princes Dock (Swire's map of 1824) has been split into three separate sheds. Princes Dock

Parade is the new name for the route alongside the River Mersey. The town has continued to develop to service and benefit from the growth of the docks.

The 1850 Liverpool Town Plan map shows and names detail of ‘scales’ (i.e. weighing) and the site of crane equipment is depicted at the east side of the dock. By the time of 1851 Ordnance Survey map, additional buildings have been added at the southern end, either side of Princes Dock passage entrance.

1863 Dower’s map shows the rail route along eastern side at Dock boundary wall to which additional railway lines have been added with a branch running north and west of the dock by the time of the 1908 Ordnance Survey map. The 1908 map also depicts ‘Mooring Posts’ running along the east and west sides of the dock (waterside). The sheds and railway lines running at the east side (adjacent to the Dock Boundary Wall and east sheds) appear to have been reconfigured between the 1927 and 1954 Ordnance Survey Maps. Little appears changed at the east side of the dock until the almost complete removal of the individual buildings and warehouses that fronted the east side of Bath Street (between their last depiction on the 1968-69 Ordnance Survey Map and that of 1975-78).

#### **6.4 Merseyside Historic Environment Record**

- 6.4.1 A search of the Merseyside Historic Environment Record (HER) was undertaken for an area of 300m in diameter from the centre of the Site (December 2015). This delivered a total of 81 records of which 36 are listed buildings; 2 records are classed as buildings; 4 are individual findspots (i.e. artefact finds) and 29 classed as ‘sites’ (the location of former buildings/structures derived from mainly documentary research and 18<sup>th</sup> Century pre-Ordnance survey mapping and most likely buried and/or part destroyed by subsequent development). The majority of the HER records are located c. 200m to 300m from the proposed development Site, mostly to the south east around Old Hall Street and Castle Street (mainly listed buildings and not visible from the Site).
- 6.4.2 Other than the designated heritage assets, the majority of information sourced and used in this Archaeology Statement was not yet available in the HER database at the time of enquiry. The gazetteer (Appendix 2) contains those HER sites relevant to the Site, and its immediate vicinity as well as those new sites generated from previous desk-based research, archaeological excavations and new work commissioned by Moda Living.
- 6.4.3 The HER contains the Merseyside Historic Landscape Characterisation Project, a dataset from a GIS based landscape character survey undertaken across Merseyside (NML, 2011). Its scale and resolution is designed to complement HER data and assist broader searches to show the nature and extent of historic landscape change through time and potential survival of historic character within the current landscape. On a Site specific level, it simply records that the Site lies within an area of predominant industrial use



from the mid nineteenth century, changing to predominantly commercial use within the 20<sup>th</sup> century.

## **6.5 Previous Archaeological Work**

### Liverpool Waters

- 6.5.1 The Site forms part of an area researched as part of the Environmental Statement for the Liverpool Waters scheme (for which outline consent was granted in 2013). Cultural heritage and archaeological assessment was undertaken along with the research and delivery of an ‘Archaeological Deposit Model’ (100/2424 Liverpool Waters Outline Consent, November 2011).
- 6.5.2 The Archaeological Deposit Model is a digital, geographic information system (GIS) archaeological deposit model (compiled by CgMs). It was produced to assist identifying areas of high, medium and low archaeological potential. It consolidates historic map data covering the period 1785 to 1956 and used baseline information on heritage assets and aerial photographs to identify structures associated with the docks, alterations and demolitions. Locational information on available, known geotechnical investigations 1993 - 2010 is included. The digital model also incorporates current topographic data relating to historic surfaces, aerial photographs from Google Earth and relevant aerial and ground-based photographs from English Heritage’s National Monument Record.

### Archaeological Investigations at Liverpool’s waterfront

- 6.5.3 A series of excavations were carried out between 2001 and 2009 in response large-scale development at Liverpool’s waterfront. Investigations along the line of the Liverpool Canal Link, at Mann Island, the Museum of Liverpool, on the line of the proposed Tram route, Dukes Dock and Liverpool One, have provided significant insights into the development and growth of the City from the eighteenth century and demonstrated the survival and significance of Liverpool’s waterfront archeology. They have in particular provided evidence for dock wall construction, land reclamation, the nature of settlement and industrial activity with the associated artefacts. The investigations undertaken at Liverpool One (including the site of the ‘Old Dock’) have not been fully research or published. However, the recent publication of ‘Archaeology at the Waterfront – Investigating Liverpool’s Historic Docks’ (OAN 2014) provides the first synthesis of the canal, Mann Island and Museum of Liverpool excavations.

### Archaeological Watching Brief at Princes Half Tide Dock

- 6.5.4 An archaeological desk-based assessment and a watching brief was carried out in 2006 during excavation of geotechnical test pits in advance of development on land adjacent to Princes half Tide Dock (SJ 336 909, Pevely & Adams 2006 & 2007). The watching brief found deposits immediately the ground

surface was primarily make-up (i.e. deposits used to make up the land) deposited during the construction of the basin and remodeling in the 1860s. The most significant artefacts recovered were fragments of sugar mould, probably dated to 1787-1820. These were in pale sand deposits at approximately 3 metres from the surface. Layers of silts and clays lay below the make up deposits, which most likely represent the pre-dock foreshore. Additional watching brief was undertaken in 2007 during the excavation of a basement for the new apartment block. This was aimed at confirming the results of the earlier watching brief and recovered further sugar mould and ceramics.

#### Archaeological Watching Brief on Canal Link at Princes Dock passage

- 6.5.5 In 2007 work commenced on the Liverpool Canal Link, which directly impacted upon the Princes Dock. In 2008, an archaeological watching brief was undertaken as part of the bulk excavation during which elements of the transit shed foundations and the north wall of the Georges Dock Basin were uncovered. The original sea wall and temporary works wall were also identified during the course of the works (Sites 19 & 20). The temporary retaining wall was constructed of yellow sandstone ashlar masonry with some pink sandstone quarry waste packing. Part of the wall was constructed using recycled architectural stone. The 1967 roll on-roll off ramp was re-exposed and removed in order to allow the construction of a culvert across Plot 7.

#### Archaeological Watching Brief during ground investigation works at the Site

- 6.5.6 Moda Living commissioned an archaeological watching brief during geotechnical ground investigations carried out at the Site (Vacant Land, Princes Dock, William Jessop Way, Liverpool, NGR SJ337 907). Prior to this the nearest archaeological investigations relate to those carried out at Princes Half Tide Dock and at the south of Princes Dock passage.
- 6.5.7 In planning the Stage One ground investigations (GI) at the Site, Arup used the Archaeological Deposit Model (ADM) as part of their research and liaised with the Archaeological Consultant. This resulted in identifying the best locations for determining subsurface features at the Site, including the likely location of the buried Princes Dock Wall (Site 45) and Sea Walls (Site 44) as identified from the ADM and additional cartographic analysis (Arup April 2016, Figure 2.2).
- 6.5.8 The Archaeological Consultant produced a 'Brief' (outlining archaeological project requirements) and Archaeological Watching brief on Stage One geotechnical ground investigations was undertaken by Archaeological Services, National Museums Liverpool (ASNML) between the 29th February and the 4<sup>th</sup> March 2016. ASNML liaised with the GI contractor regarding the excavation and archaeological monitoring of four trenches at the Site (Adams 2016, Fig.2). The depth, stability and size of the trenches prevented access and deposits were recorded via from spoil. 3D digital models were generated photo modeler software and used to produce scaled profile drawings. The ASNML report (Adams 2016) forms part the supporting planning

documentation. The following is reproduced from, and summarises, the full report (references Adams 2016):

## Trenches

- 6.5.9 *TT301/305 and TT302/303* (Adams 2015, Figs. 2 & 3, Plates 1,2,3,4) - successfully located the upper courses of the retaining wall to Princes Dock though this appears to have been badly disturbed for most or all of its length by the cutting of a step c. 1-1.2 m wide and 0.9 to 1.2 m deep. The top of the dock wall was found c 0.70m below ground level at a height of c. 6.8m AOD in TT301/305 and c. 0.35m below surface at height of c. 6.95m AOD in TT 302/303. The cut into the top of the wall was possibly made to accommodate the concrete staging constructed in 1929, though it will also, at least in part, have been created during the replacement of Foster's original sandstone copings with granite in the 1860s (Jarvis 1991, 38). In consequence none of the dock copings survive and the upper levels the wall retain little of its original form.
- 6.5.10 The wall is constructed in a mix of red and yellow sandstone using a Portland cement or similar. Whilst the facing of the wall has been located it was not possible to determine its thickness, though a minimum upper thickness of c. 1.5 m should be assumed. (Adams 2016 pg 8). Photographic evidence shows that the wall had a pronounced batter on the dock face and it is likely to be considerably thicker at its base. Fig. 2 shows the line of this feature projected from the excavated evidence though it should be noted that this shows the minimum width of the wall at just below surface level and the area underlain by the wall will be wider than that depicted. (Adams 2016 pg 8-9). None of the other deposits found in these trenches were of archaeological significance.
- 6.5.11 *TT304 and TT306* (Adams 2016 Figs 2 & 3, Plates 5,6,7) - The deposits of sand and crushed sandstone found in TT304 and TT306 (Contexts 10 and 15.) almost certainly represent material deposited behind the retaining wall of Princes Dock in the period 1810-1820. (Adams 2016 pg 9). The source of this material is uncertain but most is likely to derive either from the excavation to create the dock (Jarvis 1991, p. 60 shows a cut of c. 2 m into bedrock) and/or quarry waste imported from the quarries (mainly in the Runcorn area) with the stone used to build the dock retaining walls. Some is likely to be waste from working and shaping the stone, which was generally cut on site (Weir et al 1993, 27). The silts and clays noted at the base of both profiles (Contexts 11 and 16) may represent tidal flat deposits associated with the tidal zone of the River Mersey excavated during construction of Princes Dock and redeposited behind the retaining wall. (Adams 2016 pg 9)
- 6.5.12 In general these deposits are similar to those seen elsewhere in Princes Dock (e.g. Pevely & Adams 2006, Johnson 2011) which suggests that they are likely to extend across much of the site. These show a marked contrast to older areas of the docks complex where a more heterogeneous fill was used, often consisting of debris from central Liverpool and with occasional thick lenses of pottery, tobacco pipe debris and other archaeological material bedded within

layers of sand, rubble and silt. At Princes Dock there appears to be little cultural material within the fills behind the retaining walls (Adams 2016 pg 9).

- 6.5.13 *The brick culverts* (Adams 2016, Plate 8, 10, 11) observed in the upper levels of this deposit (crushed sandstone and sand) are of uncertain function but are likely to relate to drainage of the site. They are undated but must be in the range 1820-1929 (Adams 2016 pg.9).
- 6.5.14 *The sandstone features* (Adams 2016 Plates 5,6,7 & 9) identified at the bottom of TT304 and 306 (contexts 12 and 17) probably represent the sea wall shown on Horwood's Map of Liverpool of 1803 though it is difficult to be certain of this. The squared block at the base of TT306 was firmly set in place and appeared to be level and in situ (c. 4m below ground level, c 3.2m AOD). Current works not able to show whether this was part of an east-west or north-south aligned wall and there therefore remains a degree of uncertainty as to its precise location and alignment within the site (Adams 2016 pg. 9 & Fig. 2).
- 6.5.15 The sandstone in TT304 (c 3.5 m below ground level at c. 3.6m AOD) was less completely observed though there appeared to be a vertical edge on its eastern side which suggests that it is part of a wall, though no jointing could be seen and it is possible that it is in fact the upper surface of bedrock though borehole data suggests that this is unlikely because rock head is probably located at a depth of c. 5.6 m below BGL in the general area of the TT304 and 306 (Arup desk-study). This also suggests that if the sandstone features located in TT304 and 306 are the 1803 sea wall it survives to a height of c. 1.5-2 m.
- 6.5.16 Broadly contemporary sections of sea wall excavated to the south (Gregory et al 2014, 78 in Adams 2016) were constructed using yellow sandstone (in contrast to the red sandstone noted above) and had been partly dismantled in places. It is probably reasonable to assume that the section within Princes Dock was constructed in a similar manner, though there is in fact little contemporary evidence for its form in this area (see Section 3 in Adams 2016). The closest excavated section to the present site was relatively insubstantial and may actually be a temporary structure related to land reclamation (Gregory et al 2014, 78 in Adams 2016 pg 9-10).
- 6.5.17 Construction make up for Princes dock wall seals the putative 1803 wall, which suggests that the wall as depicted on the 1803 map was either never completed or, perhaps more likely, was partly dismantled during the construction of Princes Dock and the materials recycled. (Adams 2016 pg 10)
- 6.5.18 *Rails, sets and concrete* - The concrete used as the base for the setts and rails in this area appears unlikely to be late 19th century (Arup engineers, pers. comm.). One explanation for this could be that that section of the quayside was resurfaced and the rails re-laid during rebuilding of the transit sheds in 1929. Jarvis (1991, 59) shows the demolition of the earlier sheds in 1929 and although it is difficult accurately assess the perspective it appears that the rails in the area around TT304 and 306 have been laid since. Given that only one

layer of setts is present, the area was probably stripped to the upper surface of the made-ground and resurfaced.

- 6.5.19 *Construction fill and deposits* - In general the archaeological potential of the fill material used to construct Princes Dock is low. It appears to contain little cultural material, though analogy with other areas (e.g. Princes Half-Tide Basin; Pevely & Adams 2006) suggests that occasional lenses of material relatively rich in material such as ceramics may be present, particularly to the base of the profile.
- 6.5.20 The lower fills east of the 1803 sea wall may be richer in cultural material, in general the fill used in earlier areas of Liverpool's docks was more heterogeneous than that used from the early to mid-19th century, often being derived from a range of sources in central Liverpool. Analogy with other sites in the area suggests that these lower fills (i.e. below c. 3.5 m BGL) may be of slightly greater archaeological potential.
- 6.5.21 *In conclusion* - The retaining wall to Princes Dock is badly damaged in its upper courses but otherwise remains substantially intact and its location within the site can now be accurately predicted. c 0.70m below ground level at a height of c. 6.8m AOD in TT301/305 and c. 0.35m below surface at height of c. 6.95m AOD in TT 302/303. Although damaged in its upper levels it remains a significant component of the heritage value of the site. The earlier, c. 1803 (as seen on Horwood's map), sea wall is deeply buried. Within TT306 in situ evidence was c. 4m below ground level, (c 3.2m AOD); in TT304 a possible sandstone block was c 3.5 m below ground level (c. 3.6m AOD). Likely representing the remains of the sea wall, it is in a relatively poor condition and its line remains uncertain, particularly at the southern end of the site, though it is likely that that section was destroyed when Princes Dock was constructed.

## **6.6 Previous geotechnical investigations**

- 6.6.1 Previous geotechnical investigations give an insight into the existence and condition of the buried dock wall along the east side of Princes Dock. Geotechnical investigations were undertaken around Princes Dock between January and February 1995 (Exploration Associates May 1995). These were carried out for Ove Arup & Partners (consulting engineers to the Merseyside Development Corporation) and show that the Dock Wall exists at the Site.
- 6.6.2 Trial Pit 21 was on land immediately to the south of the Site (c length east-west 10 metres; 2m north/south) and located the 'sandstone block dock wall' approximately 0.40 metres from the surface of 7.26m AOD. The front of the dock wall lies at c30m west of the Dock Boundary Wall at Bath Street. The Trial pit section plan indicates that at less than one metre it is 2 metres wide.
- 6.6.3 At the far east of the trench, another 'sandstone blockwork wall' is recorded which seems to be located adjacent to the surface concrete associated with the

railway tracks further to the east. It is possible that this represents some survival of the late 18<sup>th</sup> /early 19<sup>th</sup> century sea walls (gazetteer Site **44**) as seen on historic maps and as extrapolated by Arups to show their possible association with Princes Dock Wall a within the Site (Arup April 2016, Figure 2.2).

- 6.6.4 In 2001/2002 Ian Farmer Associates carried out ground investigations under the supervision of Arups in advance of the construction of the Malmaison Hotel, Princes dock (c 300m south-west of the Site). Two trial pits located the geometry of the dock wall, encountering it at a depth of 1.40m with a width of 1.90m (Arups Jan. 2016).

## 7. Statement of Significance & Impact

### 7.1 Significance

7.1.1 This section provides a statement on the heritage significance of archaeological assets within the Site, based on designation, the archaeological interest of the asset, and professional judgment using the ICOMOS (2011) Guidance on Heritage Impact Assessment for Cultural World Heritage Site Properties (see Appendix 3). It also assesses the potential impact of development.

7.1.2 There are not any Scheduled Monuments within the Site and only one Grade II listed building adjoining it (Site 17, Princes Dock Boundary Wall).

7.1.3 The archaeological potential of the Site relates to those known, and as yet undisclosed, sites that may evidence past activity. The following Gazetteer sites have been identified as being located within on in the immediate vicinity of the Site: Princes Dock (16); Dock Boundary Wall (17); Railway tracks and associated surface (21); Transit Sheds (24); Bath House (38); Sea Wall (44); Princes Dock Wall (45).

7.1.4 The Site adjoins the Stanley Dock Conservation Area and is within the buffer zone of Liverpool Maritime Mercantile City World Heritage Site. The WHS was inscribed on the World heritage List as “the supreme example of a commercial port at the time of Britain’s greatest global influence” (2004). Its outstanding universal value (OUV) stems from three factors:

- Liverpool played a leading role in the development of dock construction, port management and international trading systems in the 18th and 19th centuries;
- Buildings and structures of the port and the city are an exceptional representation of mercantile culture;
- The city had a major influence on the worldwide movement of population and change in the 18th and 19th centuries through its involvement in the transatlantic slave trade, and as the leading port of mass European immigration to the New World.

7.1.5 The following gives and idea of the categories of archaeological potential associated with Liverpool’s docks and waterfront and their significance (Appendix 3). They represent some of the types of archaeological evidence found from archaeological investigations carried out in response to Liverpool’s waterfront development from 2001.

- **Foreshore use** – primarily evidence forming part of former land use and exploitation of the coast sealed in waterlogged/ alluvial deposits relating to prehistoric period onwards prior to dock construction i.e. ship building, fishing, pottery manufacturing and sugar production.

Significance – not a key attribute of OUV and expected to be of local to regional significance, ‘Medium.’

- **Land reclamation and dock construction** - phases of sea and basin walls built to reclaim land predominantly associated with dock construction. Evidence of the engineering and construction methods of docks from the early eighteenth century brick built ‘Old Dock’ (1715) to the range of footings, supporting structures, evidence of structural failure and rebuilding; the associated infilling behind walls which contain sealed deposits of enabling secure dating of artefacts such as cranes.

Significance – demonstration of innovation and methods of construction is a key attribute of OUV. These sites have the capacity to convey OUV and are considered ‘Very high’ where they survive.

- **Industrial buildings and structures** – associated with dock operation, trade and transport such as gates, sluices, warehouses, transit sheds, railways, timber yards, engine sheds, slipways.

Significance – a key attribute of OUV and expected to be ‘Very High’ where they survive but will need to be assessed on an individual basis.

7.1.6 The setting of a heritage asset also requires consideration. Setting is described in the NPPF as, ‘*the surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve*’ (DCLG 2012, NPPF, Annex 2). The setting of buried archaeological assets lies in their relation to other buried features and deposits, not just those visible on the surface. Buried remains may also be appreciated in current land form such as ‘*historic street or boundary patterns, or through the continuity of use of the land that surrounds them*’ (Historic England, Note 3, March 2015). Their form of survival will have a bearing on their significance.

7.1.7 The ‘Archaeological Deposit Model’ (CgMs 2011) forms part of the existing assessment of archaeological potential. It demonstrates the capacity for below ground survival from available sources, enables understanding of the evolving land form and provides a degree of confidence as to the level of potential in order to inform future intrusive archaeological and geotechnical investigations. The area definitions used are:

- **High Potential:** for the physical evidence they contain about technological innovation within the WHS.  
All current and historic dock walls (where they survive), buried sea wall, lock structures, half-tide lock structures and associated sluices, hydraulics, swing bridges, etc.  
All designated buildings are identified as being of High Potential for their Industrial Archaeology interest.

Where the exact location of sub-surface features is only approximately known, the area of high potential has been extended to incorporate an additional area around the presumed location. A zone 5m wide either side



of each dock wall/sea wall has been identified in order to accommodate inaccuracies in historic mapping and potential structures at the base and to the rear of each wall.

- **Medium Potential:**

Wharves – the date of construction has been deduced from historic map sources and the nature of wharf structure has generally been characterised by available geotechnical data.

Transit Sheds and other undesignated buildings (extant structures and ‘site of’) including the foundations and floors of Transit Sheds, which are of generally limited, archaeological interest.

Other (undesignated) structures for their Industrial Archaeology interest.

- **Low Potential:**

Extant Dock basins – water-filled and generally cut to or into Sandstone bedrock. Assumed to have been maintained (dredged or sluiced) and sediments and artefactual evidence on the basin floor will be recent in date and of very limited archaeological interest.

## **7.2 The Princes Reach Site - Significance and Impact**

7.2.1 The proposal comprises a full detailed planning application to erect a circa 34 storey residential tower (Use Class C3) comprising circa 304 private rented sector apartments and 40 car parking spaces, 8 motorcycle parking spaces, 76 cycle parking spaces and, plant, storage, reception and recreation areas and hard and soft landscaping on vacant brownfield land, William Jessop Way, Princes Dock, Liverpool, L3 1QP.

7.2.2 Following on from the previous developments within Princes Dock to the south (the existing multi-storey car park, Malmaison Hotel and Crowne Plaza Hotel) the proposed development Site is located over the east side of the original Princes Dock wall (constructed between 1810-1821). Likewise is the William Jessop House office scheme, which received planning permission in June 2015 and which immediately neighbours the development submitted within this planning application.

7.2.3 The management and mitigation of change to the historic environment is based on the recognition with planning policy that heritage assets are an “irreplaceable resource” (NPPF para. 126). In line with national and local planning policies, development proposals which have the potential to affect designated and non-designated heritage assets and their settings should give weight to the conservation and enhancement of the assets consistent with their level of importance/ sensitivity. For designated assets significant weight is given to conservation and for non-designated it is taken into account in a balanced judgment.

7.2.4 The Princes Reach Design and Access statement demonstrates the design process that has evolved and steps taken to consider and avoid buried dock wall, where possible. As a result the development will have localised impacts

on the buried Princes Dock Wall through the construction of the core area and required lift pit (c 6 metres deep). Overall foundation options include possible localised impacts from foundation pile caps and ground bearing slabs for the main tower. Arup Stage One Ground Investigation Report (6 April 2016, Figure 6.1) shows an initial interpretation of the ground investigation Trial Pit Locations with the proposed building footprint.

- 7.2.5 The archaeological interest of the Site relates to those known, and as yet undisclosed, heritage assets that may evidence past activity. The following Gazetteer sites have been identified as being located within or in the immediate vicinity of the Site: Princes Dock (16); Dock Boundary Wall (17); Railway tracks and associated surface (21); Transit Sheds (24); Bath House (38); Sea Wall (44) Princes Dock Wall (45). Of these, Sites 16, 17 & 21 above ground heritage assets are considered in the accompanying Heritage Statement (April 2016).

## **Significance & Impact**

### **7.2.6 Princes Dock Wall (45)**

Significance – identified as a heritage asset that contributes to OUV. The Princes Dock Wall lies within an area of High Archaeological Potential (Appendix 4). As the first of the docks to be built north of the Pier Head, its importance lies in potential to contribute to the development of the dock system. Whilst not visible on the surface, and its historic fabric have been impacted by alterations (historical and the construction of modern developments to the south of the Site).

Evidence from the Archaeological Watching Brief (Adams 2016) suggests that the historic Princes Dock Wall is badly damaged in its upper courses but otherwise remains substantially intact. Its location within the site can now be accurately predicted. c 0.70m below ground level at a height of c. 6.8m AOD in TT301/305 and c. 0.35m below surface at height of c. 6.95m AOD in TT 302/303. Although damaged in its upper levels - its core below ground structure is likely to survive to evidence original layout and it remains a significant component of the heritage value of the site. There is also potential for some survival of structural evidence associated with the dock's construction, operation and associated land management within deposits behind the wall (as evidenced by the culverts found in TT304 and TT306).

Considered as of High value.

***Impact - the scheme does not include basements and the foundations are likely to consist of slab and piles arranged in a grid; the development will have localised impacts on the buried Princes Dock Wall through the construction of the core area and required lift pit (c 6 metres deep). The intention is to avoid and minimize harm to the dock wall through further identification of its condition in additional geotechnical and archaeological investigation in advance of development.***

***Considered as Minor to Negligible / Minor to Moderate.***

***Overall Impact –Moderate / Slight to Moderate.***

**7.2.7 Transit sheds (24)**

Significance – the remains of nineteenth/early 20<sup>th</sup> century floors of dock transit sheds are likely to survive near the surface of the Site. They lie within an area of Medium Archaeological Potential (see Appendix 4). Their importance relates to their association with early nineteenth century dock operation and their ability to evidence such changes in trade, cargo etc. Often associated with substantial operational structure i.e. cranes.

Considered as of Medium to Low value.

***Impact – it will be difficult to avoid any remains which lie close to the surface and which survive within the footprint of the building.***

***Considered as Moderate.***

***Overall Impact –Moderate.***

**7.2.8 Bath House (38)**

Significance – the baths were demolished during the construction of Princes Dock. They lie within an area of Medium Archaeological Potential (Appendix 4). Their level of survival, if at all any remains exist, is unknown. Situated immediately adjacent to and associated with the sea wall (44) and phases of reclamation, they represent earlier use of the foreshore for privately run, then municipal bathing.

Considered as of Low to Negligible value.

***Impact – if any remains survive, these are likely of be immediately to the south of and outside the Site.***

***Considered as – Negligible/ unknown.***

***Overall impact – Neutral.***

**7.2.9 Sea Walls (44)**

Significance - identified as heritage assets that contribute to OUV, phases of sea and basin walls were built to reclaim land predominantly associated with dock construction. Evidence of their orientation and existence is seen on eighteenth century maps. They lie within an area of High Archaeological Potential. The sea walls are a result of mid to late eighteenth century town expansion. Archaeological excavations elsewhere on Liverpool's waterfront have shown such walls to survive to considerable depth with their associated deposits.

Evidence from the Archaeological Watching Brief (Adams 2016) suggests that sandstone 'block', likely representing the remains of the sea wall, is in a relatively poor condition. Its line of orientation remains uncertain, particularly at the southern end of the site, though it is likely that that section was

destroyed when Princes Dock was constructed. However, the level of wall survival across the entire Site remains uncertain.

Considered as of High value.

***Impact - The intention is to avoid and minimize harm to sea walls through their identification and assessment of survival in further geotechnical tests and archaeological investigations in advance of development. This will inform the submission of any detailed design for avoiding impacts where possible.***

***Considered as Minor / Negligible.***

***Overall Impact – Slight to Moderate.***

- 7.2.10 The significance of these heritage assets, and the deposits in which they are located, will be more fully assessed on individual basis through future archaeological investigations at the Site. This will assist more fully define their survival, extent and condition in order to better understand their significance, development impacts and define appropriate mitigation – whether this is in situ preservation by design and/or detailed archeological excavation and recording.

### 7.3 Significance and Impact Summary table

Items	Identified Impact	Sensitivity	Severity of change/magnitude	Overall Impact
45 - Princes Dock Wall	Physical localised impact – likely from construction of core lift pit on site of part of the dock wall; possible localised physical impact of possible slab and pile foundation at dock wall	High	Minor to Moderate	Moderate / Slight to Moderate
24 - Transit Sheds	Physical impact – removal of any surviving floor surfaces	Medium to Low value	Moderate	Moderate
38 - Bath House	Physical impact –if any remains survive, this is likely to be immediately to the south of the Site	Low to Negligible value	Negligible/unknown	Neutral
44 - Sea Walls	Physical impact – archaeological watching brief investigations suggests that walls may not survive at height within the Site.	High	Minor / Negligible	Slight to Moderate

## **8. Mitigation**

- 8.1 Further archaeological investigations will determine the appropriate level of mitigation in relation to Site development. The intention is to more fully understand the archaeological interest of the Site and avoid and minimize harm, notably to the dock wall.
- 8.2 Mitigation will be informed by further initial archaeological investigation. This will take place prior to any groundworks associated with development at the Site. Investigation will provide further information on the condition, nature, extent and survival of below ground heritage assets and inform the requirements for any further investigations (such as fuller excavation recording or watching briefs during development). It will also inform detailed foundation design and other development impacts (such as construction of services, treatment of contaminated land and landscaping) so as to avoid or minimize damage to surviving below ground structure.
- 8.3 Archaeological investigation will also allow additional data regarding the profile of Princes Dock Wall and extent of the battered walls to be compiled, and to build up a digitised database of the sub-surface extent of the walls. The results of archaeological investigations will assist to inform the most suitable means of integrating, conserving and interpreting archaeological heritage assets at the Site. The results will be made publically available to the Historic Environment Record and added to the Liverpool Waters Archaeological Deposit Model, which will contribute to better understanding and refining the areas currently identified as of high, medium and low archaeological potential.
- 8.4 Any further archaeological information requested will be discussed and negotiated with Liverpool City Council. It is believed that any requirements relating to archaeology should be conditioned as part of the decision notice for the Site.

## **9. Liverpool Waters Condition Conformity**

- 9.1 The conditions of outline planning consent relating to archaeology and cultural heritage are as follows:

Condition 14: Archaeological Evaluation and Investigation

Condition 25 (l): Details of integration and interpreted heritage assets

Condition 27: Conservation Management of Heritage Assets

### **Condition 14**

- 9.2 Archaeological investigations will be carried out in line with a Written Scheme of Investigation (WSI), which will be submitted to, and approved by, the Local Planning Authority prior to the commencement of development. The WSI will detail the appropriate scope and programme of archaeological investigation (i.e. evaluation, excavation) including subsequent analysis and reporting to be undertaken in areas of medium or high archaeological potential. All archaeological investigations will be managed by a professional archaeologist and the results will be added to the Liverpool Waters Archaeology Deposit Model.

### **Condition 25(l) & Condition 27**

- 9.3 The results of archaeological investigations will assist inform the most suitable means of integrating, conserving and interpreting archaeological heritage assets in conformity with Condition 25(l) & Condition 27, as outlined in the separate Heritage Statement (April 2016).

## **10. Conclusion**

- 10.1. This statement provides an independent archaeological assessment of the proposed 'Princes Reach' development. It has considered the archaeological potential of the site, the significance of heritage assets of archaeological interest and potential impact that the development might have.
- 10.2. The Site is located over the original early nineteenth century Princes Dock wall, associated operational transit sheds and dock railway. Archaeological watching brief recording during Site ground investigations located the buried Princes Dock Wall and found it to be badly damaged in its upper courses but otherwise remains substantially intact and its location within the site can now be accurately predicted. Watching brief also recorded the likely remains of the sea wall, which appears in a relatively poor condition and its line remains uncertain, particularly at the southern end of the Site, though it is likely that that section was destroyed when Princes Dock was constructed.
- 10.3. It is considered that possible minor negative impacts on the dock wall and any surviving sea wall can be minimized and mitigated through appropriate design informed by fuller future archaeological investigations of its survival, along with the other heritage assets, prior to the commencement of Site development.

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WYG Liverpool Waters Environmental Statement: Volume 1 (November 2011)

WYG Liverpool Waters Environmental Statement: Volume 2: Appendix 4.1 Baseline 'Heritage Environment'; Appendix 4.2: Gazetteer of Sites: (1) Heritage Assets & (2) Potential Sites/Features; Appendix 4.4: Heritage Impact Assessment  
Liverpool Waters Conservation Management Plan for the Protection, Conservation and Preservation of Heritage Assets (November 2011)

## **12. Appendices**

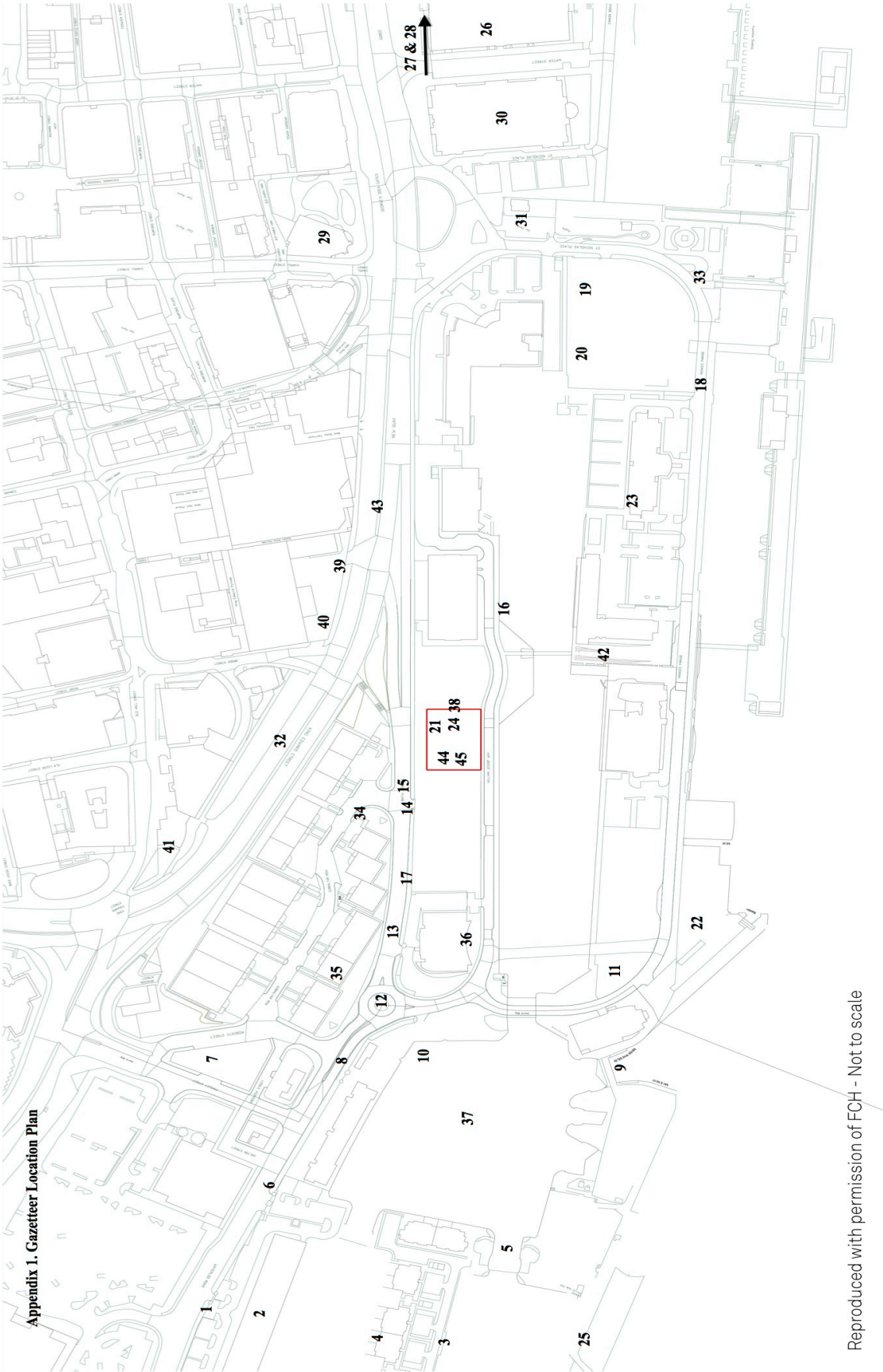
Appendix 1. Gazetteer Location plan

Appendix 2. Gazetteer of Sites

Appendix 3. Evaluation method

Appendix 4. Archaeological Deposit Model

Appendix 1. Gazetteer Location Plan



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## Appendix 2. Gazetteer of Sites

### Note

- The Gazetteer includes updated Merseyside Historic Record (HER) information obtained in December 2015. The Sites & Monuments File Reference (SMR) refers to the original paper archive of the HER.
- Walkover Survey – the gazetteer includes reference to ‘walk over surveys’. These relate to surveys undertaken: in March 2008 & c 2008/9 regarding baseline conditions; in March 2010 (OAN) to review information pertaining to the baseline conditions and by CgMs in 2011 for compilation of the Archaeology Deposit Model. Any information from a Site visit relating to this Archaeological Statement is identified and dated 09.0.2016 or 03.03.2016 (made during ground investigations).

<b>Site Number</b>	<b>1</b>
<b>Site Name</b>	Gate to Waterloo Dock
<b>NGR</b>	SJ 33664 91353
<b>Site Type</b>	Boundary wall and gates; orientated north/south on the east side of the docks
<b>Period</b>	Industrial
<b>HER No</b>	MME11191
<b>SMR No</b>	-
<b>Statutory Designation</b>	Grade II Listed LB 1062577 (Legacy UID 359708).; Located within WHS
<b>Source</b>	Egerton Lea Consultancy 2008
<b>Description</b>	Gate to Waterloo Dock, by J Hartley. Gate rubble piers with splayed bases, rounded angles and Doric caps, that to left with window and rear entrance (gatekeeper’s hut); twentieth century railings. The complex is characterised by cyclopean architecture, granite rubble masonry piers with associated iron fixings including gates, signage and a gate hut.

<b>Site Number</b>	<b>2</b>
<b>Site Name</b>	Waterloo Grain Warehouse
<b>NGR</b>	SJ 33560 91250
<b>Site Type</b>	Grain Warehouse converted to residential dwellings
<b>Period</b>	Industrial
<b>HER No</b>	MME 9565
<b>SMR No</b>	-
<b>Statutory Designation</b>	Grade II Listed LB 1062576 (Legacy UID 359705); Located within WHS
<b>Source</b>	Egerton Lea Consultancy 2008; Central Docks Canal Link Report (OA North); HER
<b>Description</b>	

Constructed in 1866-8 after the Waterloo Dock was reconfigured as a specialist grain dock. Built by George Fosbery Lyster. These were the first warehouses in the world built to handle bulk grain directly from a central power source, which drove all the elevators and conveyors. The surviving warehouse is one of a series of three contemporary structures. The north stack was demolished after it was damaged in the May Blitz of 1941 and the west stack was demolished in 1969. Built mostly of brick the warehouse has 6 storeys and 43 bays divided into six compartments by five full height vertical loading bays and two hoist towers of an additional two storeys with pedimented gables. The ground floor comprises a colonnade of rusticated stone arches and square piers arches. (WHO nomination - referencing how? 2005, 66) Paired round-headed windows have iron frames, louvred with round window above. Bands at sill levels. Parapet and cornice Converted to residential apartments between 1989 – 1998.

<b>Site Number</b>	<b>3</b>
<b>Site Name</b>	West Waterloo Dock
<b>NGR</b>	SJ 33499 91207
<b>Site Type</b>	Wet Dock; characterised by red sandstone with granite coping stones
<b>Period</b>	Industrial
<b>HER No</b>	-
<b>SMR No</b>	-
<b>Statutory Designation</b>	Located within WHS buffer zone
<b>Source</b>	Egerton Lea Consultancy 2008; Central Docks Canal Link Report (OA North Unpublished), LCC 2005, 129; Pollard 2004, 122

### **Description**

Waterloo Dock was remodelled in 1863-8 by GF Lyster. West Waterloo Dock represents the remains of one of two branch docks that were aligned north/south as part of a rebuilding of the original 1834 Waterloo Dock and provided berths for medium-sized ocean-going vessels and provided a route between Victoria Dock and Princes Half Tide Dock. A new river entrance with locks was built in 1949 at the south end of the dock, removing the Dock Master's Office and the West Shed which had been built following the Dock's original reconstruction, and blocking the entrance to Princes Half Tide Dock.

<b>Site Number</b>	<b>4</b>
<b>Site Name</b>	East Waterloo Dock
<b>NGR</b>	SJ 33615 91229
<b>Site Type</b>	Wet Dock; characterised by red sandstone with granite coping stones
<b>Period</b>	Industrial
<b>HER No</b>	-
<b>SMR No</b>	-
<b>Statutory Designation</b>	Located within WHS
<b>Source</b>	Egerton Lea Consultancy 2008; LCC 2005, 128- 9; Pollard 2004, 122

### **Description**

Following the repeal of the Corn Laws in 1846 Waterloo Dock was remodelled and Waterloo East Dock was one of two branch docks aligned north/south, part of a rebuilding of the original 1834 Waterloo Dock in 1863-8. Designed by GF Lyster, it was the world's first specialist bulk grain dock, with three blocks of warehouses equipped for the handling and storage of grain, on the west, north and east sides of the dock. In 1904 part of the warehouses were turned into a mill and by 1925 the warehouses were re-equipped to handle oil seeds. Two of the warehouse blocks have been demolished: the north block was demolished following the May Blitz of 1941 whilst the west block was demolished in 1969 to make way for a container terminal. In 1988 the docks were closed.

<b>Site Number</b>	<b>5</b>
<b>Site Name</b>	Site of Princes Half Tide Dock Swing Bridge, West Waterloo Side
<b>NGR</b>	SJ 33522 91142
<b>Site Type</b>	Swing Bridge
<b>Period</b>	Industrial
<b>HER No</b>	-
<b>SMR No</b>	-
<b>Statutory Designation</b>	Located within WHS
<b>Source</b>	Egerton Lea Consultancy 2008
<b>Description</b>	Swing bridge constructed 1863-8 between Princes Half Tide Dock and West Waterloo Dock. The bridge is no longer extant, but the recesses for the bridge mechanism still survive.

<b>Site Number</b>	<b>6</b>
<b>Site Name</b>	South gate to Victoria, Princes and Waterloo Docks
<b>NGR</b>	SJ 33678 91172
<b>Site Type</b>	Boundary wall and gates; orientated north/south on the east side of the docks.
<b>Period</b>	Industrial
<b>HER No</b>	MME 12476
<b>SMR No</b>	-
<b>Statutory Designation</b>	Grade II Listed LB 1218455 (Legacy UID 359707); Located within WHS
<b>Source</b>	Egerton Lea Consultancy 2008
<b>Description</b>	South gate to Victoria, Princes and Waterloo Docks, by J Hartley. Constructed in the 1830s, gate piers, square battered stone with rusticated bases and Doric caps with gabled tops and acroteria; gate slots are present but twentieth century railings subsequently installed. The complex is characterised by red brick architecture and granite rubble masonry piers with associated iron fixings including gates, signage and a gatehut.

<b>Site Number</b>	<b>7</b>
<b>Site Name</b>	Sprague Brothers Engineering Building, 2-4 Roberts Street
<b>NGR</b>	SJ 33747 91083
<b>Site Type</b>	Engineering Building and warehouse
<b>Period</b>	Industrial
<b>HER No</b>	-
<b>SMR No</b>	-
<b>Statutory Designation</b>	Located within WHS buffer zone
<b>Source</b>	Egerton Lea Consultancy 2008

**Description**

Sprague Brothers Engineering Building, 2-4 Roberts Street, believed to have been built between 1841 and 1851. The site was originally occupied by a tobacco works, the buildings were owned by British American Tobacco in the early-mid twentieth century, until the 1960s when it became an engineering works. The works is composed of a series of single and two storey factory / warehouse units connected by internal doorways, with a four storey office block at the top of the site. The entire complex is built of red brick laid in Flemish bond, although where walls have been rebuilt and openings have been changed the replaced brickwork is in an irregular English garden wall bond. Sandstone dressings exist in the form of copings, sills, keystones and lintels. The office block also has glazed brick decorations in the form banding details and quoined window surrounds. The office block has a tiled roof and the warehouse / factory units have slate roofs.

<b>Site Number</b>	<b>8</b>
<b>Site Name</b>	Boundary wall and gates, Roberts Street
<b>NGR</b>	SJ 33675 91059
<b>Site Type</b>	Boundary wall and gates; orientated north/south on the east side of the docks.
<b>Period</b>	Industrial
<b>HER No</b>	MME 12158
<b>SMR No</b>	-
<b>Statutory Designation</b>	Grade II listed, LB 1205386 (Legacy UID 213712). Located within WHS
<b>Source</b>	Egerton Lea Consultancy 2008

**Description**

Dock gate opposite Roberts Street, by J Hartley. Granite rubble gate piers with splayed bases, rounded angles, and Doric caps, brick wall between. The complex is characterised by red brick architecture and granite rubble masonry piers with associated iron fixings including gates, signage and a gatehut.

<b>Site Number</b>	<b>9</b>
<b>Site Name</b>	Entrance to Princes Half Tide Dock
<b>NGR</b>	SJ 33520 99870
<b>Site Type</b>	Wet Dock
<b>Period</b>	Industrial
<b>HER No</b>	MME12353
<b>SMR No</b>	-



**Statutory**

**Designation** Grade II listed, LB 1208892 (Legacy UID 359254);  
Located within WHS

**Source** WYG 2011 ES V2 4.2; Egerton Lea Consultancy 2008;  
walkover survey

**Description**

Entrance to Princes Half Tide Dock, 1840s by J Hartley. Granite rubble wall brought to a fair face, laid in blocks of greatly differing sizes to landward and seaward of original timber gates. Two capstans remain to landward side.

**Site Number** 10

**Site Name** Princes Half Tide Dock

**NGR** SJ 33647 91056

**Site Type** Wet Dock; cyclopean sandstone walls, granite coping stone, dock furniture including mooring rings and bollards, subterranean buttresses quayside, bridge and pontoon structures.

**Period** Industrial

**HER No** MME12502

**SMR No** -

**Statutory**

**Designation** Grade II listed, LB 1252907 (Legacy UID 436020);  
Located within WHS

**Source** WYG 2011 ES V2 4.2; Egerton Lea Consultancy 2008;  
walkover survey; LCC 2005,128-9; HER; Pollard 2004,12

**Description**

North/south orientated dock structure located between Princes Dock and East and West Waterloo Docks. Designed by Jesse Hartley, this dock represents an excellent example of nineteenth century dock engineering. Originally built as a tidal basin and then rebuilt in 1868 by G.F Lyster in Hartley fashion. The walls and locks are constructed of intricate cyclopean granite masonry. The Princes Half Tide Dock entrance was formerly a swing bridge however the channel has been in-filled and a causeway created to carry a fixed roadway over the former dock entrance. The northern side (i.e. all that lies within the Princes Half Tide Dock) is Grade II listed (Wardell Armstrong 2003, 23). The access to the dock was previously via a lock system on the west side of the dock in the sea wall. This passage has been closed off. Construction of the Liverpool Canal Link in 2007-2008 saw the temporary re-opening of the original passage from Princes Dock to Princes Half Tide Dock with a new channel being cut through the original infill (Wardell Armstrong, 2003; Oxford Archaeology North, 2008). As part of the same phase of work the dock was partially in-filled using a ballast of sterile 6F2 to reduce its overall depth.

**Site Number** 11

**Site Name** Site of Riverside Branch Railway

**NGR** SJ 33522 90918

**Site** Railway line

**Type Period** Industrial

**HER No.** -

**SMR No** -

**Statutory**

**Designation** Located within WHS buffer zone  
**Source** WYG 2011 ES V2 4.2; Egerton Lea Consultancy 2008; walkover survey

**Description**

Riverside railway built in 1895 to connect to the main line from Euston with ocean going liners berthed at Princes landing stage. It closed in 1971.

**Site Number** 12  
**Site Name** Site of Princes Dock station, Waterloo Road  
**NGR** SJ 33671 91018  
**Site Type** Passenger railway station on the Liverpool Overhead Railway  
**Period** Industrial  
**HER No** -  
**SMR No** -  
**Statutory Designation** Located within WHS buffer zone  
**Source** WYG 2011 ES V2 4.2 Egerton Lea Consultancy 2008; walkover survey

**Description**

Princes Dock station on Waterloo Road opened in February 1893. It was on the elevated line 16 feet above street level on the iron structure, which supported the line (Overhead Railway). Originally served by trains between Herculaneum Dock and Alexandra Dock stations. Each platform had its own stairway leading to street level, ticket facilities were provided on the platforms. Extensively bomb damaged in 1941, it never reopened and was demolished in late 1957.

**Site Number** 13  
**Site Name** Princes Dock Gates (north)  
**NGR** SJ 33682 90956  
**Site Type** Boundary wall and gates  
**Period** Industrial  
**HER No** MME 12768§  
**SMR No** -  
**Statutory Designation** Grade II listed, LB 1280755 (Legacy UID 213714); Located within WHS  
**Source** WYG 2011 ES V2 4.2; Egerton Lea Consultancy 2008; walkover survey

**Description**

Granite rubble piers with splayed bases, rounded angles and Doric caps. One pier larger with window and rear entrance, for gatekeeper, the other with groove and original gate. Now blocked. The listing records this as by John Foster, but it appears to date to the rebuilding of Princes Half Tide Dock by Lyster in 1868, as its form imitates Hartley's gates of the 1840s.

**Site Number** 14  
**Site Name** Dock gates (south)  
**NGR** SJ 33722 90854  
**Site Type** Boundary wall and gates  
**Period** Industrial

**HER No** MME 11886  
**SMR No** -  
**Statutory Designation** Grade II listed, LB 1068397 (Legacy UID 213713);  
 Located within WHS  
**Source** WYG 2011 ES V2 4.2; Egerton Lea Consultancy 2008;  
 walkover survey

**Description**

Dock gates by John Foster, Dock Engineer between 1799 and 1824. The gates are formed by a pair of square buff sandstone piers in the Greek Revival style. The shaft of each is formed by three pieces of stone. Stone piers have pitted rustication, raised panels and caps, twentieth century railings close the entrance.

**Site Number** 15  
**Site Name** Cast Iron Drinking Fountain Series  
**NGR** SJ 33728 90841  
**Site Type** Cast-iron drinking fountain set into the dock perimeter wall at Princes Dock  
**Period** Industrial (1859)  
**HER No** -  
**SMR No** -  
**Statutory Designation** Located within WHS  
**Source** WYG 2011 ES V2 4.2 Egerton Lea Consultancy 2008;  
 walkover survey

**Description**

Cast-iron drinking fountain set into the dock perimeter wall at Princes Dock. A series of 33 fountains were installed in 1859, in an attempt to keep the dock workers out of the pubs, where they were forced to go to find refreshment as prior to the construction of the drinking fountains the only Source of water was two horse troughs. The cast-iron fountain is still intact, although the pipework behind and the adjacent tap have been removed. The driving force behind the provision of drinking fountains for the dock workers was Charles Pierre Melly who produced a treatise on the requirement for amenities such as drinking fountains in 1858. Although the tap next to the fountain has been removed, the structure is otherwise intact.

**Site Number** 16  
**Site Name** Princes Dock  
**NGR** SJ 333730 905702 (general for whole dock)  
**Site Type** Wet Dock; cyclopean sandstone walls, granite coping stone, dock furniture including mooring rings and bollards, subterranean buttresses quayside, bridge and pontoon structures, extant iron and wood derelict wharfage off shore to the west of the dock  
**Period** Industrial  
**HER No** MME 9551  
**SMR No** 3390-029  
**Statutory Designation** Located within WHS buffer zone

**Source** WYG 2011 ES V2 4.2; Egerton Lea Consultancy 2008; walkover survey; McCarron and Jarvis 1992; Sharples 2004; OA North 2008a; OA North 2009; HER; Sherwood 1821; Opening of Princes Dock in 1821 by Robert Salmon (NML), Princes Dock 1829 by J Harwood (LCC), Princes Dock c.1954 by Stewart-Bale (NML)

**Description**

North/south orientated dock structure originally designed in 1800 but not commenced until 1810 and completed in 1821. Encompasses approximately 15 acres of enclosed water plus substantial additional wharfage in the form of a timber and iron pier extending out into the Mersey. At the south end there is a blocked passage to the former site of Georges Basin, which was subsequently a graving and then branch dock with the original coursed Runcorn stone quay wall (Sharples 2004, 122).

A “roll on roll off” terminal was installed in 1967 at the southern end of the dock, for the Irish Packet, which was made redundant in 1981 (McCarron and Jarvis 1992, 72). This modification meant that the south-western corner of the dock was heavily modified and significantly reduced in height to accommodate a reinforced concrete ramp. The Eastern quay was modified and widened in 1988 as part of redevelopment master plan under Taylor Young (Sharples, 2004). At this time a substantial part of the basin was edged with concrete facing obscuring the original stone work. Concrete caissons were also constructed down the west side of the dock.

Further modification in 2007 saw the removal of the concrete ramp installed in 1988 as well as the remaining section of the south-western wall down to formation level. This modification was undertaken as part of the Plot 7 development for the construction of the new Liverpool Canal Link (OA North 2008a; OA North 2009). During canal extension works OAN examined a small section of the original south quay that had survived the “roll on roll off” installation in 1967. The wall was constructed in pink and yellow sandstone with a pink ashlar face waterside. Backfill deposits included quarry waste, probably that resulting from the excavation of the dock (OAN 2014,137).

A lock situated within the dock now provides access into the subterranean concrete box culvert, which forms part of the new canal.

<b>Site Number</b>	<b>17</b>
<b>Site Name</b>	Princes Dock Boundary wall and piers, Bath Street (east side of dock)
<b>NGR</b>	SJ 33671 90980 – 33878 90514 (eastern side at Bath Street) Listed Building NGR 33718 90861
<b>Site Type</b>	Boundary wall orientated north/south
<b>Period</b>	Industrial
<b>HER No</b>	MME 12828
<b>SMR No</b>	-
<b>Statutory Designation</b>	Grade II listed, LB 1322045 (Legacy UID 477706); Located within the WHS
<b>Source</b>	WYG 2011 ES V2 4.2; HER; Egerton Lea Consultancy 2008
<b>Description</b>	

Access to Princes Dock from the town was controlled by this dock boundary wall, the first to be built in Liverpool. Construction begun in 1816 and was completed in 1821 when the dock opened, it originally extended around all sides of the dock, though

only the east side survives *in situ*. The boundary wall is of English bond red brick with ridgeback sandstone copings and at its full height measures 5.5 metres high and around 210m long. The wall complex is characterised by red brick architecture with Greek Revival gate piers and associated iron fixings including gates, signage and gatekeepers building. Remnants of the overhead railway remain including an arched feature adjacent to Princes Dock.

<b>Site Number</b>	<b>Site 18</b>
<b>Site Name</b>	Sea Wall
<b>NGR</b>	SJ 33681 90467
<b>Site Type</b>	Sea Wall
<b>Period</b>	Industrial
<b>HER No</b>	-
<b>SMR No</b>	-
<b>Statutory Designation</b>	Located within WHS buffer zone
<b>Source</b>	WYG 2011 ES V2 4.2; Walkover survey; Strangers Guide to Liverpool (Kaye 1810); J & A Walker 1816; Egerton Lea Consultancy 2008; Sherwood 1821 OS 1851

**Description**

Sea Wall in the vicinity of Seacombe Basin (Site 33), which appears to have been constructed between by 1803 and 1816; and continuing as part of Princes Dock construction between 1810 and 1821.

<b>Site Number</b>	<b>19</b>
<b>Site Name</b>	Sea Wall
<b>NGR</b>	SJ 33769 90489
<b>Site Type</b>	Sea Wall
<b>Period</b>	Industrial (c 1760)
<b>HER No</b>	-
<b>SMR No</b>	-
<b>Statutory Designation</b>	Located within WHS buffer zone
<b>Source</b>	WYG 2011 ES V2 4.2; OA North 2008a; OA North 2009; OA North 2014; Horwood 1803

**Description**

North - South orientated section of early sea wall extending approximately 50m. Constructed using yellow sandstone ashlar masonry without a mortar bond. Identified during the bulk excavation at Plot 7 in advance of the Liverpool Canal Link. Already significantly reduced in height (a single surviving course) this wall was only encountered c. 400mm above the formation level of the canal culvert. Probably marks an early stage of land reclamation north of George's Dock Basin. Likely dismantled during the construction of the northern passage linking Georges Dock and Princes Dock, it probably is the earliest example of dismantling of a river wall during reclamation (OAN 2014, pg 78). The foundations of this wall were recorded and left *in situ*. They survive beneath the backfill of the construction cut for the subterranean canal culvert, which now links the Pier Head section of the canal to Princes Dock Lock.

<b>Site Number</b>	<b>20</b>
<b>Site Name</b>	Temporary retaining or buttress wall
<b>NGR</b>	SJ 33769 90504
<b>Site Type</b>	Sea Wall
<b>Period</b>	Industrial
<b>HER No</b>	-
<b>SMR No</b>	-
<b>Statutory Designation</b>	Located within WHS buffer zone
<b>Source</b>	WYG 2011 ES V2 4.2; OA North 2008a; OA North 2009; Eyes 1765; Perry 1769; Eyes 1785; Gore 1796; Horwood 1803

**Description**

East/west orientated section of temporary retaining or buttress wall. A 3m section of this wall was identified during the bulk excavation at Plot 7 in advance of the construction of the Liverpool Canal Link. This wall was constructed of yellow sandstone ashlar masonry with some pink sandstone quarry waste packing. Part of the wall was constructed using recycled architectural stone including part of a large stone lintel or pediment. A similar wall was found within LCL5 of the Pier Head section of the Canal Link in front of the Cunard Building. The full extent of this wall was not established as it continued beyond the eastern formation of the canal construction cut. Likely to extend eastwards beneath the Crown Plaza Hotel car park.

<b>Site Number</b>	<b>21 (Within Site)</b>
<b>Site Name</b>	Dockside Railway at Princes Dock
<b>NGR</b>	SJ 33728 90820
<b>Site Type</b>	Standard gauge railway tracks
<b>Period</b>	Industrial
<b>HER No.</b>	-
<b>SMR No</b>	-
<b>Statutory Designation</b>	Located within WHS buffer zone
<b>Source</b>	WYG 2011 ES V2 4.2; Walkover survey; OS 1893

**Description**

Standard gauge rails set into contemporary cobbled surface orientated N-S on the East Side of Princes Dock. Rails run the full length of the site apart from truncation due to newly developed car park. Associated with transit sheds, which were located on the east side of the dock. Comprises three sets of rails. The rails likely pre-date the production of the OS mapping of 1893. An additional rail lines and configurations appear to the east of the transit shed between OS 1908 and OS 1968.

<b>Site Number</b>	<b>22</b>
<b>Site Name</b>	Princes Jetty
<b>NGR Site</b>	SJ 33506 90861
<b>Type</b>	Landing stage
<b>Period</b>	Industrial
<b>HER No</b>	-
<b>SMR No</b>	-
<b>Statutory Designation</b>	Located within WHS buffer zone
<b>Source</b>	WYG 2011 ES V2 4.2; Walkover survey

### **Description**

Wooden and concrete pier structure projecting into the river. Three piers form landing stage. Landing stage also characterised by extant iron railings, timbered office and dock furniture including temporary bridge structure. Departure point from the UK to Ellis Island for thousands who emigrated from Liverpool to the New World.

<b>Site Number</b>	<b>23</b>
<b>Site Name</b>	Site of Riverside Railway Station/Offices
<b>NGR</b>	SJ 33662 90575
<b>Site Type</b>	Railway building
<b>Period</b>	Industrial
<b>HER No</b>	-
<b>SMR No</b>	-
<b>Statutory</b>	
<b>Designation</b>	Located within WHS buffer zone
<b>Source</b>	WYG 2011 ES V2 4.2; Walkover survey

### **Description**

Foundations of station and possible railway office buildings opposite Princes Jetty. Associated with the Riverside Railway (Site 11) and located on the west side of Princes Dock.

<b>Site Number</b>	<b>24</b>
<b>Site Name</b>	Site of Princes Dock Transit Shed
<b>NGR</b>	SJ 33726 90798
<b>Site Type</b>	Transit Shed
<b>Period</b>	Industrial
<b>HER No</b>	-
<b>SMR No</b>	-
<b>Statutory</b>	
<b>Designation</b>	Located within WHS buffer zone
<b>Source</b>	WYG 2011 ES V2 4.2; Walkover survey; Gage 1836; Austin 1836; Bennison 1841, Bennison 1848; OS 1851; Dower 1863 Jarvis 1991

### **Description**

Remnants of transit shed footings orientated N-S on the east side of the Princes Dock. Sections of brick footings separated by in situ metal runners which would have originally housed the transit shed doors. Transit sheds ran alongside the length of the east side of the dock. Archaeological excavations at the south end of the Princes Dock have shown that the foundations can survive up to a depth of 0.8m and may include associated crane and machine bases. Foundations are surrounded by original contemporary cobble surface and contemporary dockside railway tracks.

Jarvis – By 1889 the first sliding doors were fitted on the quayside of the former open sheds on the East Quay (pg 46)

<b>Site Number</b>	<b>25</b>
<b>Site Name</b>	West Waterloo Dock River Entrance and Extension
<b>NGR</b>	SJ 33436 91197
<b>Site Type</b>	Entrance with Series of 4 lock gates
<b>Period</b>	Industrial

**HER No** -  
**SMR No** -  
**Statutory**  
**Designation** Located within WHS buffer zone  
**Source** Egerton Lea 2008

**Description**

Mammoth cast iron gates allowing access to the river from the Waterloo Dock. Cast iron dock furniture survives extant along the river edge. Dock gates partly buried by backfill, though voids in quayside clearly show gate mechanisms surviving extant. The dock was extended in length in 1949 to connect directly with the southern end of Trafalgar dock, utilising part of the former northern entrance of Victoria Dock. The works associated with this expansion are likely to have destroyed the former dock gate between West Waterloo and Victoria Docks.

**Site Number** 26  
**Site Name** Cunard Building  
**NGR** SJ 33927 90280  
**Site Type** Building  
**Period** Industrial/Modern  
**HER No** -  
**SMR No** -  
**Statutory**  
**Designation** Grade II\* listed LB 1052283 (27/502) (Legacy UID 214150).  
 Located within WHS  
**Source** Belchem 2006; Cunard Building 2010

**Description**

The Cunard Building was built as the headquarters and main passenger terminal of the Cunard Steamship Company (Cunard Building 2010) and forms one of the ‘Three Graces’ of the Liverpool Pier Head. Construction began in 1913 and finished in 1917 and the building followed the style of Italian Renaissance palazzos (Belchem 2006, 20; Cunard Building 2010).

**Site Number** 27  
**Site Name** Port of Liverpool Building  
**NGR** SJ 33922 90208  
**Site Type** Building  
**Period** Industrial  
**HER No** -  
**SMR No** -  
**Statutory**  
**Designation** Grade II\* listed LB 1068223 (27/501) (Legacy UID 214149);  
 Within WHS  
**Source** Belchem 2006

**Description**

The Port of Liverpool Building was built in 1907 for the Mersey Docks and Harbour Company. The building features distinctive baroque domes and forms one of the ‘Three Graces’ of the Liverpool Pier Head (Belchem 2006, 20, 279).



**Site Number** 28  
**Site Name** Mersey Road Tunnel Ventilation and Central Station  
**NGR** SJ 34017 90220  
**Site Type** Ventilation and central station  
**Period** Modern  
**HER No** -  
**SMR No** -  
**Statutory Designation** Grade II listed LB 1187177 (27/500). (Legacy UID 214148); Located within WHS  
**Source** Belchem 2006  
**Description**  
Ventilation and central station for the Queensway Mersey road tunnel, which opened in 1934 (Belchem 2006, 270).

**Site Number** 29  
**Site Name** St Nicholas  
**NGR** SJ 33950 90500  
**Site Type** Chapel/Church  
**Period** Medieval - Modern  
**HER No** MME 2628  
**SMR No** 3390 - 001  
**Statutory Designation** Grade II listed LB 205993 (Legacy UID 213868); Located within WHS  
**Source** HER; Eyes 1765; Perry 1769; Eyes 1785  
**Description**  
Chapel of St Nicholas and Our Lady. The Parish Church of Liverpool and located on the former site of the Chapel of St Mary Del Key. The church was partially rebuilt following fire damage caused by a wartime air raid in 1940. Still an active parish church surrounded by a small landscaped garden that was formerly a cemetery.

**Site Number** 30  
**Site Name** Royal Liver Building  
**NGR** SJ 33892 90351  
**Site Type** Building  
**Period** Industrial  
**HER No** -  
**SMR No** -  
**Statutory Designation** Grade I listed LB,1356370 (27/503) (Legacy UID 21451); Located within WHS  
**Source** Belchem 2006  
**Description**  
The Royal Liver Building was built in 1911 for Royal Liver Assurance. The building forms one of the ‘Three Graces’ of the Liverpool Pier Head (Belchem 2006, 20, 279). The opposing clock towers are each adorned with Liver Birds, which have become an iconic symbol for Liverpool.

<b>Site Number</b>	<b>31</b>
<b>Site Name</b>	George's Dock Basin
<b>NGR</b>	SJ 33860 90410
<b>Site Type</b>	Infilled Wet Dock
<b>Period</b>	Industrial (c1785)
<b>HER No</b>	MME 2634
<b>SMR No</b>	3390-7
<b>Statutory Designation</b>	Located within WHS
<b>Source</b>	WYG 2011 ES V2 4.2; Eyes 1765; Eyes 1785; OA North 2014; 2008a; 2009; HER

#### **Description**

The conjectural site of the basin is shown on Eyes (1765), the works to basin and George's dock were completed between 1765 and 1771.

An east/west orientated section of large pink and yellow sandstone wall revealed during the bulk excavation in advance of the construction of the Liverpool Canal Link. The wall was characterised by the use of pink sandstone with granite coping and pink rubble sandstone buttresses. The wall still stood to its full height (c.6.2m) and the toe identified at formation level. The wall showed evidence of numerous phases of repair work, including reworking on one side for the addition of a brick shaft, which was probably a sluice. A substantial buttress on the north side was constructed using irregular pink sandstone bonded with a grey cement mortar. The northern construction face of the wall was roughly constructed with a mixture of pink and yellow sandstone, some of which was likely recycled from the sea wall, which would have previously stood in this location demarcating the northern boundary of the reclaimed land which now forms the modern Pier Head. A 12 metre section of the structure was removed to install the canal culvert however the rest of the structure remains extant beneath the public realm.

<b>Site Number</b>	<b>32 (Potential Site/Feature)</b>
<b>Site Name</b>	Clarke's Basin
<b>NGR</b>	SJ 33788 90835 extending to SW at SJ 33780 90800
<b>Site Type</b>	Canal Basin
<b>Period</b>	Industrial
<b>HER No</b>	MME 2641
<b>SMR No</b>	3390-14
<b>Statutory Designation</b>	Within WHS buffer zone
<b>Source</b>	WYG 2011 ES V2 4.2; Horwood 1803; OS 1851; OS 1893; HER

#### **Description**

A canal basin at the southern end of the Leeds Liverpool Canal, which was first depicted on Horwood's map of 1803 and named as 'Clarke's Basin' on the OS map of 1851. This basin represented the south-western terminus of the Leeds Liverpool Canal throughout the nineteenth century. Marked as 'disused on 1893 OS.

<b>Site Number</b>	<b>33 (Potential Site/Feature)</b>
<b>Site Name</b>	Seacombe Basin
<b>NGR</b>	SJ 33724 90441
<b>Site Type</b>	Basin
<b>Period</b>	Industrial
<b>HER No</b>	-
<b>SMR No</b>	-
<b>Statutory Designation</b>	Within WHS buffer zone & WHS

**Source** WYG 2011 ES V2 4.2; Strangers Guide to Liverpool (Kaye 1810 & 1815); Sherwood 1821; Swire 1823; J & A Walker 1823; Austin 1836; Gage 1836

**Description**

This small basin appears to have been constructed by the 1810 (Thomas Kaye Plan of Liverpool in Stranger's Guide to Liverpool). Identified by 'Ferry Boats', it is named 'Basin' on Sherwood 1821. Shown on maps produced in 1823, but was not depicted on the map accompanying the 1829 edition of this book. The basin was named as Seacombe Basin on Henry-Austin's map of 1836.

<b>Site Number</b>	<b>34 (Potential Site/Feature)</b>
<b>Site Name</b>	Boat Yard
<b>NGR</b>	SJ 33724 9088
<b>Site Type</b>	Boat Yard
<b>Period</b>	Industrial
<b>HER No</b>	-
<b>SMR No</b>	-
<b>Statutory Designation</b>	Within WHS buffer zone
<b>Source</b>	Perry 1769; Horwood 1803; J & A Walker 1823

**Description**

A boat yard associated with Clarke's Basin (site 108) on J & A Walker's map of 1823. Likely the same site first named 'Mr Dutton's Boat Yard' (Perry 1769).

<b>Site Number</b>	<b>35 (Potential Site/Feature)</b>
<b>Site Name</b>	Warehouse
<b>NGR</b>	SJ 33715 91015
<b>Site Type</b>	Warehouse
<b>Period</b>	Industrial
<b>HER No</b>	MME 9557
<b>SMR No</b>	3391-6
<b>Statutory Designation</b>	Within WHS buffer zone
<b>Source</b>	HER

**Description**

Warehouse (possible site of) on the east side of Bath Street, between Dennison and Roberts Street. Appears on James Newlands 1849 Plan of the Borough of Liverpool. Field observation recorded c 1970s- 'Brick built. 6 storey warehouse, of 3 bays with white sandstone window sills, Door arches. Interior-floors supported on cast iron circular columns and pitch pine joints. Roof - slate, supported on window trusses,

Heraldic crest and date 1824 on stone plaques on 4th storey in centre bay, also Heraldic eagles in sandstone keystones at ground floor entrances. Traditional style of loading'. Stammers, M.K. (Merseyside Museums/North Western Society for Industrial Archaeology and History). Photographed prior to demolition in 197.

<b>Site Number</b>	<b>36 (Potential Site/Feature)</b>
<b>Site Name</b>	Fort
<b>NGR</b>	SJ 33641 90935
<b>Site Type</b>	Fort
<b>Period</b>	Industrial
<b>HER NO</b>	MME 9946
<b>SMR No</b>	3390-20
<b>Statutory Designation</b>	Within WHS buffer zone (on edge)
<b>Source</b>	WYG 2011 ES V2 4.2; HER; Eyes 1785; Gore 1796; Horwood 1803; Kaye 1810

#### **Description**

This fort was first depicted on Eyes map of 1785, and had not been depicted on the Perry map of 1769. The fort occupied a promontory of newly reclaimed land. The fort was shown as a complex of four buildings on Horwood's map of 1803 however, the construction of Princes Dock resulted in the partial demolition of the fort and its reduction to a single building by 1810. By the time of the publication of J & A Walker's map of 1823 the fort was not being depicted on mapping. Recent development at the north-eastern corner Princes Dock will have impacted upon part of the fort site, although sub-surface remains might survive to the south of this building.

<b>Site Number</b>	<b>37 (Potential Site/Feature)</b>
<b>Site Name</b>	Princes Dock Basin
<b>NGR</b>	SJ 33482 93768
<b>Site Type</b>	Dock Basin
<b>Period</b>	Industrial
<b>HER No</b>	-
<b>SMR No</b>	-
<b>Statutory Designation</b>	Within WHS
<b>Source</b>	WYG 2011 ES V2 4.2; Egerton Lea Consultancy 2008; Kaye 1815; Sherwood 1821; Walker and Walker 1823

#### **Description**

This dock basin is shown most likely under construction on Kaye, 1815. Shown water-filled by 1821. The basin was replaced by Princes Half Tide Dock in 1868.

<b>Site Number</b>	<b>38 (Potential Site/Feature)</b>
<b>Site Name</b>	Bath House
<b>NGR</b>	333765 390785
<b>Site Type</b>	Bath House
<b>Period</b>	Industrial
<b>HER No</b>	MME 2639
<b>SMR No</b>	3390-12
<b>Statutory Designation</b>	Within WHS buffer zone (on edge)

**Source** HER; Eyes 1765; Perry 1769; Eyes 1785; Gore 1796; Horwood 1803; 'Baths and Wash Houses – Historical Archive' ([www.bathsandwashhouses.co.uk/archive/your-local-buildings/liverpool/](http://www.bathsandwashhouses.co.uk/archive/your-local-buildings/liverpool/)) Accessed 23/01/2015; Peel March 2015

**Description**

Appears on John Eyes 1765 map as 'Baths' with 2/3 buildings in an enclosure on land reclaimed to the north of the 'New Kay'. This new key is marked on John Eyes map of 1750 as, "being land enclosed from the sea shore by Sir \*?\* Moor with permission of the Corporation." By 1769 there appear to be seven buildings forming 'The Baths'. By 1796 Bath Street is named running from the 'New Key' to the baths.

Described as "esteemed commodious and elegant, and may be viewed" (Liverpool Guide 1796, HER).

In 1794 the Borough Council purchased privately-owned Public Baths in Bath Street. In 1820 the Bath Street Public Baths were demolished to make way for the new Princes Dock ('Baths and Wash Houses – Historical Archive').

<b>Site Number</b>	<b>39</b>
<b>Site Name</b>	Kiln
<b>NGR</b>	SJ 333845 390735
<b>Site Type</b>	Kiln
<b>Period</b>	Industrial
<b>HER No</b>	
<b>SMR No</b>	
<b>Statutory</b>	
<b>Designation</b>	Within WHS buffer zone
<b>Source</b>	1769 Perry

**Description**

Site of a kiln ('Lime Kiln') shown on G Perry survey of Liverpool.

<b>Site Number</b>	<b>40</b>
<b>Site Name</b>	Mr Brooks Brick Yard
<b>NGR</b>	SJ 333855 390765
<b>Site Type</b>	Brick and Tile Making Site
<b>Period</b>	Industrial
<b>HER No</b>	
<b>SMR No</b>	
<b>Statutory</b>	
<b>Designation</b>	Within WHS buffer zone
<b>Source</b>	HER; 1769 Perry

**Description**

Site of a Brick Yard, named and shown on G Perry survey of Liverpool.

<b>Site Number</b>	<b>41</b>
<b>Site Name</b>	Pottery findspot
<b>NGR</b>	SJ 33835 390945
<b>Site Type</b>	Pottery findspot
<b>Period</b>	Industrial
<b>HER No</b>	MME 2643
<b>SMR No</b>	3390-14
<b>Statutory</b>	

**Designation** Within WHS buffer zone

**Source** HER

**Description**

Earthenware, stoneware and creamware pottery sherds found in May 1973 on King Edward Street in cellars at 5- 10 feet depth.

**Site Number** 42

**Site Name** Location of Limestone Perch

**NGR** SJ 3364 9067

**Site Type** Sea Mark

**Period** Post Medieval

**HER No** MME 2642

**SMR No** 3390-15

**Statutory**

**Designation** Within WHS buffer zone

**Source** HER

**Description**

Location of Limestone Perch, Liverpool, a post medieval navigation mark.

**Site Number** 43

**Site Name** Post Medieval Pottery, New Quay

**NGR** SJ 33845 90656

**Site Type** Findspot

**Period** Post Medieval

**HER No** MME 13760

**SMR No** 3390-18

**Statutory**

**Designation** Within WHS buffer zone

**Source** HER

**Description**

Jackfield Type Ware sherds were found, possibly in May 1973 on New Quay.

**Site Number** 44 (Within Site - Potential Site/Feature)

**Site Name** Sea Wall

**NGR** Approximate line c SJ 33713 90829 (approx. location of TT306) to c SJ 33721 90812 (approx location of TT304)

**Site Type** Sea Wall

**Period** Industrial

**HER No** -

**SMR No** -

**Statutory**

**Designation** Within WHS buffer zone

**Source** Eyes 1785; Gore 1796; Horwood 1803; Peel March 2015; Adams 2016

**Description**

The section of sea/reclamation wall shown to the north of the baths (Site 38) and round the Fort (Site 36). Further reclamation was undertaken immediately to the north of the baths between 1796 and its depiction on Horwood 1803. Area of historic sea walls shown on the Archaeology Deposit Model (CgMs 2011). Likely sandstone fragments of the sea wall (possibly that depicted on Horwood 1803) were recorded in

trenches (TT304 and TT306) during an archaeological watching brief by on ground investigations (National Museums Liverpool 29<sup>th</sup> Feb. to 4<sup>th</sup> March 2016 described in Adams 2016).

<b>Site Number</b>	<b>45</b>
<b>Site Name</b>	Princes Dock Wall
<b>NGR</b>	Within Site: SJ 33707 90828 (c approx. location of TT301/305) to SJ 33718 90803 (c approx. location of TT302/303) Dock wall east side (South of (off Site) geotechnical trial pit No. 21 SJ SJ 33740 390758.
<b>Site Type</b>	Dock wall
<b>Period</b>	Industrial
<b>HER No</b>	-
<b>SMR No</b>	-
<b>Statutory Designation</b>	Within WHS buffer zone
<b>Source</b>	Sherwood 1821; Exploration Associates 1995; Site visit 16.01.2015;09.02.2016;03.03.2016; Farr, S (March 2015); Adams 2016; Arup (6 April 2016)

### **Description**

The buried Princes Dock wall was located at the Site during an Archaeological Watching Brief by National Museums Liverpool (29<sup>th</sup> Feb. to 4<sup>th</sup> March 2016 described in Adams 2016). Evidence suggests that the historic Princes Dock Wall is badly damaged in its upper courses but otherwise remains substantially intact. Its location within the site can now be accurately predicted. c 0.70m below ground level at a height of c. 6.8m AOD in TT301/305 and c. 0.35m below surface at height of c. 6.95m AOD in TT 302/303. Although damaged in its upper levels - its core below ground structure is likely to survive to evidence original layout and it remains a significant component of the heritage value of the site.

There is also potential for the survival of structural evidence associated with the dock's construction, operation and associated land management within deposits behind the wall (as evidenced by the culverts found in TT 304 and TT306).

Buried Dock Wall found during geotechnical investigations to the south of the Site (off Site) in 1995 - Geotechnical Trial Pit investigations (1995) carried out around the whole dock includes Trial Pit 21, which records the location of the original dock wall in land to the south of the Site (north of the current multi-storey car park) (approx. SJ 33740 390758). Site visit - No surface remains, though slight linear (orientated NW/SW) depression in car park tarmac (09.02.2016).

### Appendix 3. Evaluation method

The evaluation method used is that set out in Appendix 3a & b & section 5.9 tables (as below) of the ICOMOS, Guidance on Heritage Impact Assessment for Cultural World Heritage Site Properties (2011).

In this system, the value of heritage resources is assessed in relation to statutory designations, international, national and local, but linked clearly and objectively to the components identified in the Statement of OUV, integrity and authenticity.

Where necessary, qualitative assessments have been made using professional judgment to determine the importance of the resource. The values of the assets and attributes are defined using the following graded scale, in accordance with the table below:

#### 3a - Significance

Level of Significance	
<b>Very high</b>	<p>Sites, structures or landscapes of acknowledged international importance inscribed as WHS.</p> <p>Individual attributes that convey OUV of the WH property</p> <p>Assets that contribute significantly to acknowledged international research objectives.</p> <p>Urban landscapes of recognised international importance.</p> <p>Associations with particular innovations or developments of global significance.</p> <p>Associations with individuals of global importance.</p>
<b>High</b>	<p>Scheduled monuments and undesignated assets of such importance to be scheduled.</p> <p>Undesignated structures of clear national importance. Grade I and II* listed buildings, and Grade II buildings with exceptional qualities.</p> <p>Conservation Areas containing very important buildings.</p> <p>Urban landscapes of exceptional importance. Associations with particular innovations or developments of national significance.</p> <p>Associations with individuals of national importance.</p>
<b>Medium</b>	<p>Designated or undesignated assets that contribute to regional research objectives .</p> <p>Grade II listed buildings and undesignated buildings that have exceptional qualities or historical associations.</p> <p>Conservation Areas that contain buildings that contribute significantly to its historic character.</p> <p>Historic townscapes with important integrity in their buildings or built settings.</p> <p>Associations with particular innovations or developments of regional or local significance.</p> <p>Associations with individuals of regional importance.</p>
<b>Low</b>	<p>Designated or undesignated assets of local importance.</p> <p>Assets compromised by poor preservation and/or poor survival of contextual associations.</p>



## Archaeological Statement – Princes Reach, Princes Dock, Liverpool

	<p>Assets of limited value, but with potential to contribute to local research objectives.</p> <p>Locally listed buildings.</p> <p>Assets of modest quality in their fabric or historical associations.</p> <p>Historic townscapes with limited integrity in their buildings or built settings.</p> <p>Associations with individuals of local importance</p> <p>Poor survival of physical areas in which activities occur or are associated.</p>
<b>Negligible</b>	<p>Assets with little or no surviving archaeological interest.</p> <p>Buildings or urban landscapes of no architectural or historical merit and buildings of an intrusive character.</p>

### 3b Example guidance for assessing magnitude of impact – archaeological attributes

<b>Impact grading</b>	<b>Archaeological Attributes</b>
<b>Major</b>	<p>Changes to attributes that convey OUV of WH properties.</p> <p>Most or all key archaeological materials, including those that contribute to OUV such that the resource is totally altered.</p> <p>Comprehensive changes to setting.</p>
<b>Moderate</b>	<p>Changes to many key archaeological materials, such that the resource is clearly modified.</p> <p>Considerable changes to setting that affect the character of the asset.</p>
<b>Minor</b>	<p>Changes to key archaeological materials, such that the resource is slightly altered.</p> <p>Slight changes to setting.</p>
<b>Negligible</b>	<p>Very minor changes to key archaeological materials, or setting.</p>

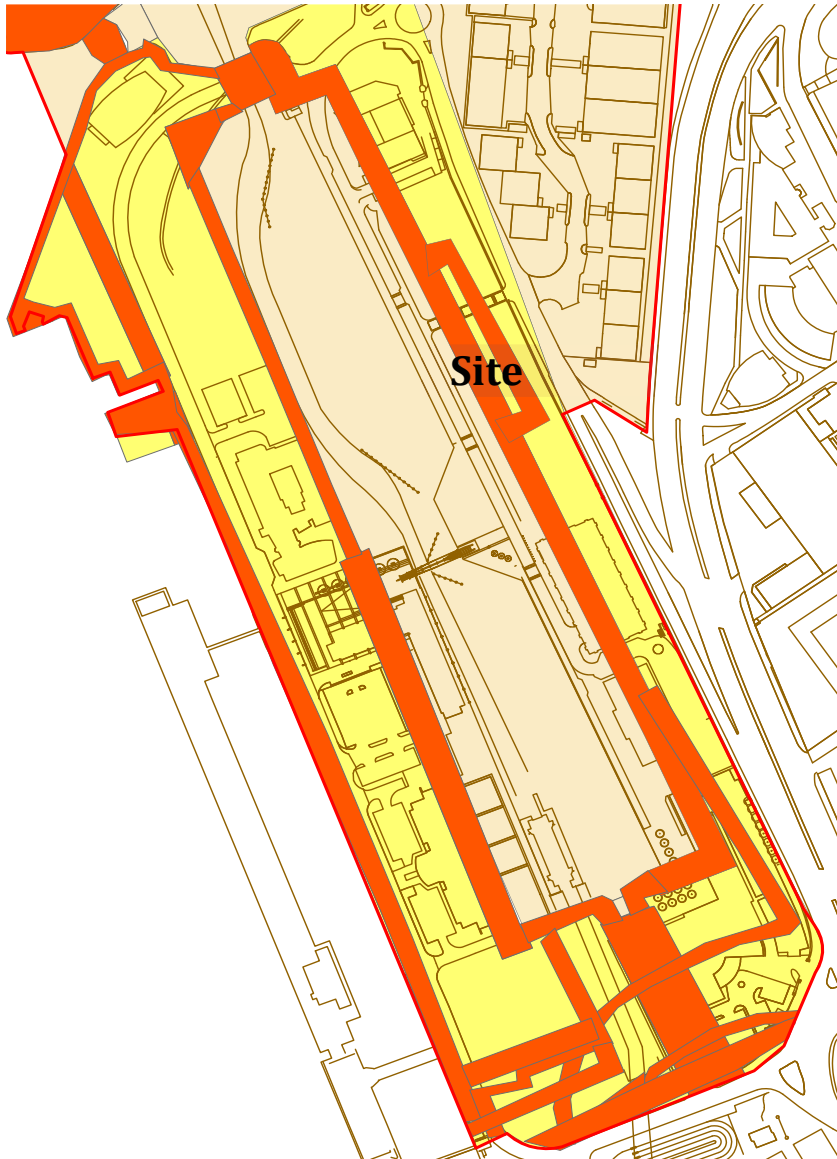
Overall Impact – (ICOMOS, Section 5.9)

Value of Heritage Asset	Scale & severity of change/Impact				
	No Change	Negligible Change	Minor Change	Moderate Change	Major Change
<b>Very High</b>	Neutral	Slight	Moderate/Large	Large/Very large	Very Large
<b>High</b>	Neutral	Slight	Moderate/Slight	Moderate/Large	Large/Very Large
<b>Medium</b>	Neutral	Neutral/Slight	Slight	Moderate	Moderate/Large
<b>Low</b>	Neutral	Neutral/Slight	Neutral/Slight	Slight	Slight/Moderate
<b>Negligible</b>	Neutral	Neutral	Neutral/Slight	Neutral/Slight	Slight

## Appendix 4 - Archaeological Deposit Model

### Areas of Archaeological Potential

High (red) Medium (yellow) and Low (beige)

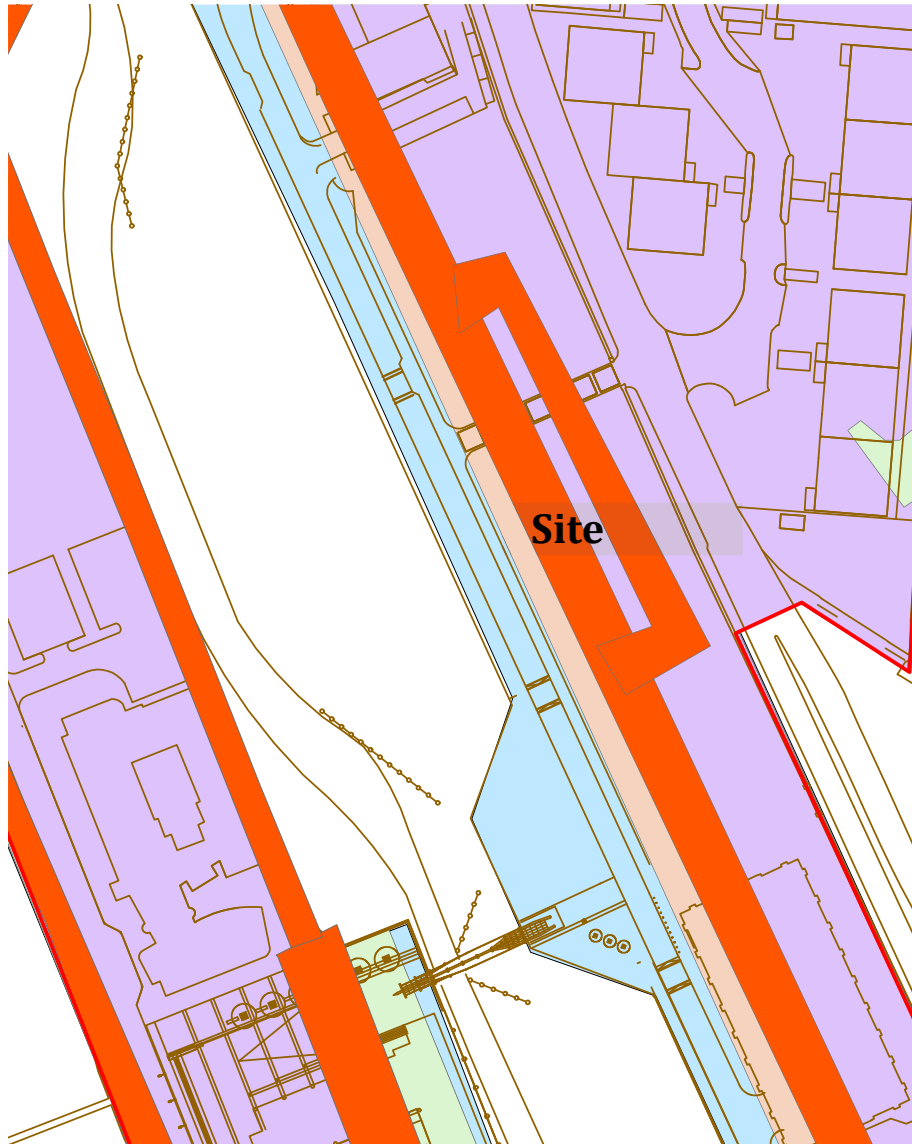


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The Site lies within areas currently identified as of High and Medium archaeological potential. The line of the dock wall is shown running north/south as an area of High Potential; the possible site of the sea wall (Site 44) is indicated by the 'handle' shape at the east of the wall.

**High Archaeological Potential overlain historic land form extent**

(by historic map: 1848 OS – purple; 1927 OS – green; 1956 OS - beige;  
existing – blue)



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The Site lies in an area where the Princes Dock has been subject to infilling in the twentieth century.



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