ARCHAEOLOGICAL STATEMENT

PRINCES DOCK BOUNDARY WALL
LIVERPOOL

August 2017

1. INTRODUCTION

1.1 The Statement considers the significance of archaeological remains and the potential impact of development proposals.

1.2 The Dock Wall is a fundamental part of the dock estate, and was constructed to control access to and from the operational dock areas. It has seen modifications since its construction in 1821, and its surroundings, and particularly the context of Princes Dock has substantially changed since construction. Once comprising of a linear feature of some c8km, the Dock Boundary Wall extends now for c.2km as part of the Liverpool Waters development site. The Dock Boundary Wall originally ran around the whole of Princes Dock, but only the eastern section now stands, and this has been modified several times, with new openings added at different times, sections of re-building, and the insertion of iron stanchions to support the Liverpool Overhead Railway.

1.3 To the western side of the wall at Princes Dock, there are areas of historic surfacing, consisting of granite setts and railway tracks. The Dock itself has also been modified since it was first constructed in 1821, with new dock walls added that narrowed the width of the dock.

1.4 The report has been prepared by Rob Burns, an archaeologist, urban designer and specialist in heritage issues, who has 30 years of experience in dealing with historic townscapes and buildings. Formerly employed by English Heritage (now Historic England) as Guardianship Archaeologist for Northumbria and later as Historic Areas Inspector, he is a qualified Archaeologist and a specialist in urban conservation and regeneration/development, and has worked extensively in Liverpool.

2. CONTEXT AND BACKGROUND

2.1 The Statement has been compiled through an analysis of the baseline archaeological information provided in the Liverpool Waters Archaeological Deposit Model, from information supplied by the Mersey Docks and Harbour Board archives and the Merseyside Historic Environment Record, and by desk-top analysis of archaeological and heritage information provided in support of other proposals submitted for planning permission within Princes Dock.

2.2 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.

2.3 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.'*

2.4 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. 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.

2.5 At Para. 139 the NPPF acknowledges that non-designated heritage assets of archaeological interest which are demonstrably of equivalent interest to scheduled monuments, should be considered subject to policies for designated heritage assets.

2.6 Liverpool Unitary Development Plan (2002) contains advice in respect of archaeology under Policy HD17:

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.

2.7 The Liverpool World Heritage Site Supplementary Planning Document (2009), describes an approach to archaeological matters at Section 5.7:

The WHS is an area of undoubted historical importance and is of international value. Archaeological remains associated with the site, whether below ground or upstanding features e.g buildings/structures, are 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. ***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.***

3. HISTORIC BACKGROUND

3.1 One of the key attributes of Liverpool, and a fundamental reason for the inscription of the WHS, is the presence of the docks. At their peak the operational docks ran for c.12km north to south along the Mersey waterfront, and were a feat of engineering marked by innovative water management techniques and advances in cargo handling, that made them the most effective docks of the period. This was accomplished not through a long, drawn out process of gradual evolution, but over a relatively short time-frame, starting with the opening of the Old Dock by Thomas Steers in 1715, and which at the time was the world's first commercial wet dock. Although fraught with risk, and the enterprise heavily mortgaged to pay for the investment, the success of the Old Dock, built within the confines of the original 'pool', and with space to take 100 vessels, established the commercial imperative and the general construction approach to the provision of the future dock system.

3.2 Following on from the Steers Dock, an octagonal tidal entrance basin was built, with graving docks and a landing stage, and the first sea wall was constructed that started to define the new shoreline. The huge investment in land reclamation, with docks and sea walls built into the river, was supported by the requisitioning of waste material from the growing population of the city, including pottery, quarry waste, and organic matter generated by the butchers, tanners etc who were increasingly based along the new waterfront. The area known as Nova Scotia, constructed around a slipway to the river, and located in the present day Mann Island area, provided a ready supply of infill material, and led to further westward expansion of the sea walls, and the Manchester Basin. By 1771, the area of Pier Head had also been reclaimed, with the central area of that location occupied by Georges Dock, and linked to Canning Dock via George's Dock passage to the south. Further change came with the construction of Georges Dock Basin and Georges Ferry, which effectively created a series of small 'islands' linked by swing bridges. At the end of the 18th century, the construction of the Manchester Dock was swiftly followed by that of the Chester Basin to the south of Pier Head. Whilst warehouses were generally located to the east of the Pier Head around Goree Plaza, transit sheds were provided on the west and east sides of Georges Dock in 1829 and 1836 respectively, and in 1828 Georges Baths were established at Pier Head.

3.3 Figure 1 shows the situation in 1769, in a map by George Perry. At this stage, the northern docks, including Princes Dock, were not constructed, the map clearly showing that area still within the River Mersey, and the eastern edge of Princes Dock marked with the Baths that were to give Bath Street its name.

Figure 1- George Perry 1769.

3.4 By the time of Gore's map of 1796, land reclamation from the Mersey had begun in earnest, with George's Dock extended westwards and containing timber yards, and the north shore supplemented by building enough land to construct a fort overlooking the river. The site of the future Princes Dock is located between the northern edge of the Dry Basin, and the Fort to the north.

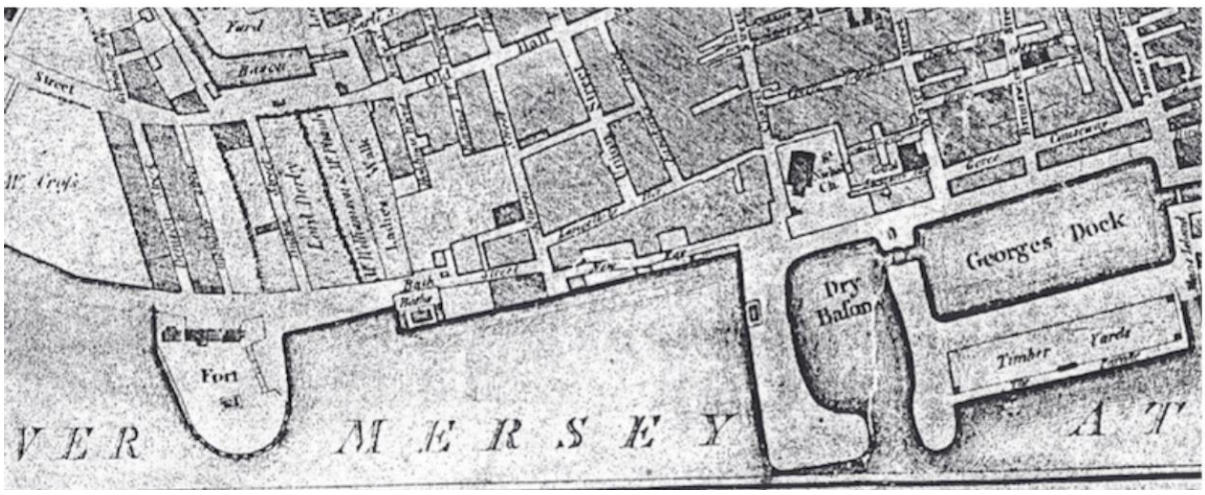

Figure 2- Gore's map of 1796

3.5 Thomas Kaye produced a map of 1810, showing the intended area of the proposed Princes Dock, and its Basin to the north (Figure 3), and indicates a substantial reclamation from the Mersey as part of that project.

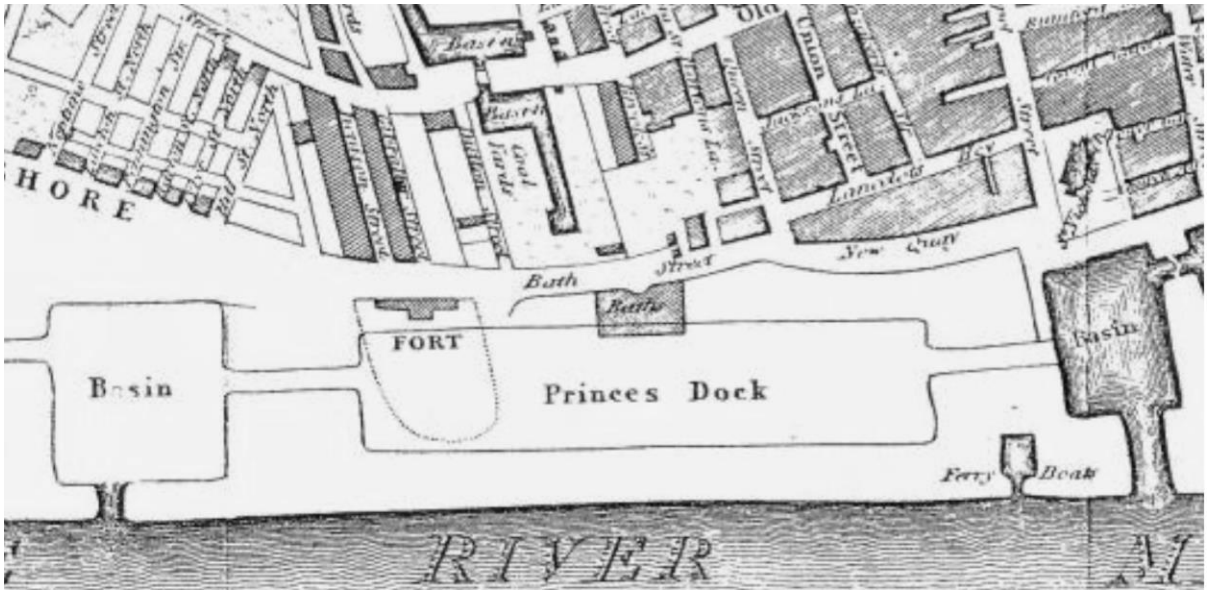

Figure 3- Thomas Kaye, 1810.

3.6 Gage's Plan of 1836 (Figure 4) shows the Dock constructed, and with its accompanying transit sheds, surrounding Dock Boundary Wall, and its connection to the Docks to the north and south as part of the spine and branch system.

Figure 4-Gage Plan of 1836

3.7 By 1863, the Dock was furnished with rail tracks, and these were located along the eastern side of the dock on the quayside to the west of the Dock Boundary Wall. These were linked to

the Waterloo Goods Railway to the north which opened in 1849, although the connections to the docks only came into operation in 1855. By 1895, Riverside Station opened on the west side of Princes Dock, serving the great trans-Atlantic Liners that moored at the jetty, and enabling passengers immediate access to the mainline railways. Changes were also made in 1893 with the Liverpool Overhead Railway, which was an elevated line constructed some 5m above the street level, and for which parts of the Dick Boundary Wall were utilised to place the iron supporting stanchions. Princes Dock station was damaged in 1941, and never re-opened, with the whole of the Overhead railway dismantled in 1957, and the stanchions capped, but left embedded in the Dock Boundary Wall.

4. ARCHAEOLOGICAL BACKGROUND

4.1 An Archaeological Deposit Model was produced to accompany the Liverpool Waters submission for outline planning permission, compiled by CgMs. This consolidated 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 was also included. The digital model incorporated current topographic data relating to historic surfaces, aerial photographs and relevant aerial and ground-based photographs from English Heritage's National Monument Record. Areas of Low, Medium and High Archaeological importance were mapped, and these are re-produced in relation to Princes Dock in Figures 5 and 6. The area of the proposal is mostly within the location of Medium Potential, but also extends into High Archaeological Potential where it meets the original dock wall.

Figure 5- Areas of Archaeological Potential

Figure 6- High Archaeological Potential overlaying the historic land form.

4.2 In relation to the current proposal, there have been a number of archaeological investigations in the Princes Dock location, including Geotechnical Investigations and Trial Pits. The closest to the site is an archaeological watching brief commissioned by Moda Living for the Princes Reach/Lexington development to the north. The work was undertaken by National Museums Liverpool, and consisted of examining four trenches, located to try and locate the original dock wall, and the historic, pre-Dock sea wall. The following is reproduced from, and summarises, the full report, produced as a result of the watching brief (*Adams, M, An Archaeological Watching Brief During Ground Investigation Works at Princes Reach, Princes Dock, Liverpool, NGR SJ 3370 9085. Site Code 174. Unpublished Report, 2016*).

4.3 Two of the trenches 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 trench TT301/305 and c. 0.35m below surface at height of c. 6.95m AOD in trench 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 during Lysters time as Dock Engineer in the 1860s. In consequence none of the dock copings survive and the upper levels of the wall retain little of its original form.

4.4. 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. As with other Dock walls from this and period, the wall had a pronounced batter on the dock face and it is likely to be considerably thicker at its base.

4.5 Trenches TT304 and TT306 revealed deposits of sand and crushed sandstone and this almost certainly represents material deposited behind the retaining wall of Princes Dock in the period 1810-1820. The source of this material is uncertain but most is likely to derive either from the excavation to create the dock 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. The silts and clays noted at the base of both profiles 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.

4.6 In general these deposits are similar to those seen elsewhere in Princes Dock 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.

4.7 The brick culverts 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.

4.8 The sandstone features identified at the bottom of TT304 and 306 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 were not able to show whether this was part of an east-west or north- south aligned wall and there remains a degree of uncertainty as to its precise location and alignment within the site.

4.9 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. It is possible that it is the upper surface of bedrock, though borehole data suggests that this is unlikely as bed rock is thought to be 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, then it survives to a height of c. 1.5-2 m.

4.10 Broadly contemporary sections of sea wall excavated to the south were constructed using yellow sandstone 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.

4.11 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.

4.12 In relation to the setts and rail tracks that form the current surface, the concrete used as the base for the setts and rails in this area appears unlikely to be late 19th century. It is likely that this section of the quayside was resurfaced, and the rails re-laid, during rebuilding of the transit sheds in 1929. Given that only one layer of setts is present, the area was probably stripped to the upper surface of the made-ground and resurfaced.

4.13 In general the archaeological potential of the fill material used to construct Princes Dock is low. It appears to contain little cultural material 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.

4.14 It appears that 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 at 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.

4.15 The trial trenches follow earlier work undertaken in advance of work to the Malmaison Hotel in 2001/02 where two trial pits located the dock wall at a depth of 1.40m, and in that location it had a width of 1.90m. In 1995, Exploration Associates undertook geotechnical investigations on behalf of the Merseyside Development Corporation, and the early dock wall was located c.0.40m from the existing surface at 7.26 AOD some 30m west of the Dock Boundary Wall at Bath Street.

5. SIGNIFICANCE AND IMPACT

5.1 The significance to OUV of the Dock Boundary Wall and other heritage assets relate to their role as part of the Liverpool Maritime Mercantile City WHS, and the criteria for inscription. In this instance this relates to the construction of docks, maritime trade in goods and migration, innovative technologies and dock management. In the context of archaeological deposits in this location, the following are considered to have potential:

- Pre-Dock foreshore- former land-use and coastal activity evidenced in waterlogged or alluvial deposits or structures. Potentially related to ship-building, fishing, industrial activities or amenity. None of these are an attribute of OUV as they pre-date the expansion of the city as a maritime entrepot of global significance. Low Significance.
- Land reclamation and dock construction- the sea walls and basins constructed from the mid 18th century were an early expression of Liverpool's determination to undertake significant engineering projects to facilitate trade. Such works have the potential to demonstrate innovation in construction methods, and contribute to OUV. Very High Significance if features survive.
- Buildings and structures relating to port activity- the operational infrastructure of the docklands is an essential part of maritime trade, and elements such as transit sheds footings, crane bases, gates, sluices, railways and slipways would contribute to OUV. Medium to High Significance if they survive.

5.2 In relation to the Archaeological Deposit Model for Liverpool Waters, the following definitions were used:

- 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.

5.3 For the current proposal, the Deposit Model has indicated that it is located in areas of High and Medium Potential.

5.4 The proposal is for the dismantling and then partial rebuilding of a section of the grade II listed Dock Boundary wall, and the construction of a carriageway and footpaths to provide access from Bath Street into Princes Dock. There is the potential for these works to disturb archaeological deposits of Very High, High Medium and Low Significance in relation to OUV. The following table summarises the significance and impact:

Attribute	**Impact**	**Significance**	**Severity of Change**	**Overall Impact**
Princes Dock Boundary Wall	Removal of a section of the wall and exposure of ground around the foundations.	Very High	Moderate	Moderate
Princes Dock wall	Localised disturbance of original dock wall due to the construction of carriageway and footpaths.	Very High	Minor	Slight
Bath House	Location unknown, but potentially located adjacent	Low	Negligible	Neutral

	to the Dock Boundary Wall on Bath Street, Potential for disturbance through carriageway construction.			
Sea Walls	Potential to disturb early sea walls pre-Dock construction through carriageway construction	Very High	Negligible	Neutral
Transit Sheds	Potential of transit shed foundations and/or surfacing below current setts	Medium	Minor	Slight
Surfacing, including setts and railway tracks	Removal of existing surfacing to construct carriageway and footpaths.	Medium	Moderate	Moderate

5.5 In relation to the above table, it is unlikely that the proposed works will impact on the early sea walls due to their depth below current ground levels, and the relatively shallow engineering required to construct the carriageway. Similarly, the location of the Bath House is not known, and it may have been entirely removed in earlier engineering works relating to Bath Street, the construction of the Dock Boundary Wall itself or later works to provide the Liverpool Overhead Railway.

5.6 The extant setts and railway tracks relate to later works to the 1821 dock, and appear to date from 1929 following the replacement of the earlier transit sheds. Whilst they demonstrate the evolution of the Princes Dock area, they are limited in terms of their significance and the contribution they make to OUV.

5.7 The Princes Dock wall has been identified in several trial trenches within the area, and appears to have had the copings removed, presumably at the time the dock walls were re-configured in 1928. The wall is located c.30m west of the Dock Boundary Wall, between 0.35m to 0.70m below current ground levels. The proposal illustrates that the new surface will be above this level, and should not disturb the dock wall.

5.8 The removal of a section of the Dock Boundary Wall, and its partial re-instatement, will expose the foundations of the wall, with the potential for further damage. It is considered that the works should be undertaken with archaeological supervision by a qualified and experienced archaeologist. In advance of this, the wall should be fully recorded in its existing condition and configuration, and the sub-service levels should also be assessed and recorded, so that a full understanding of the construction of the wall is gained.

6 MITIGATION

6.1 Archaeological investigations involving trial trenching will be undertaken on the site before any groundwork commences. This should ascertain the location, condition and survival of the sub-surface archaeological attributes, and should be used as a basis to decide on further archaeological work, such as larger areas of excavation or watching briefs during development. It will also be used to inform the detailing of foundation works and construction of the carriageways and any associated landscaping, with the aim of preventing damage to the archaeological deposits.

6.2 Full recording to enable the production of a digital database of the Dock Boundary Wall should be completed before the commencement of any work. Dismantling of the Boundary Wall should be undertaken with archaeological supervision, and the foundations, where removed for the permanent road arrangement, should be archaeologically recorded. The foundations for the section of Wall to be re-instated should remain in-situ and be protected until the Wall is re-built.

6.3 The existing surface of setts and railway tracks should be digitally recorded before works commence. Setts should be removed and re-used in the new surfaces, and any surplus removed and safely stored for repair work or re-instatement works elsewhere within the dock estate. The railway tracks should be preserved in-situ following recording.