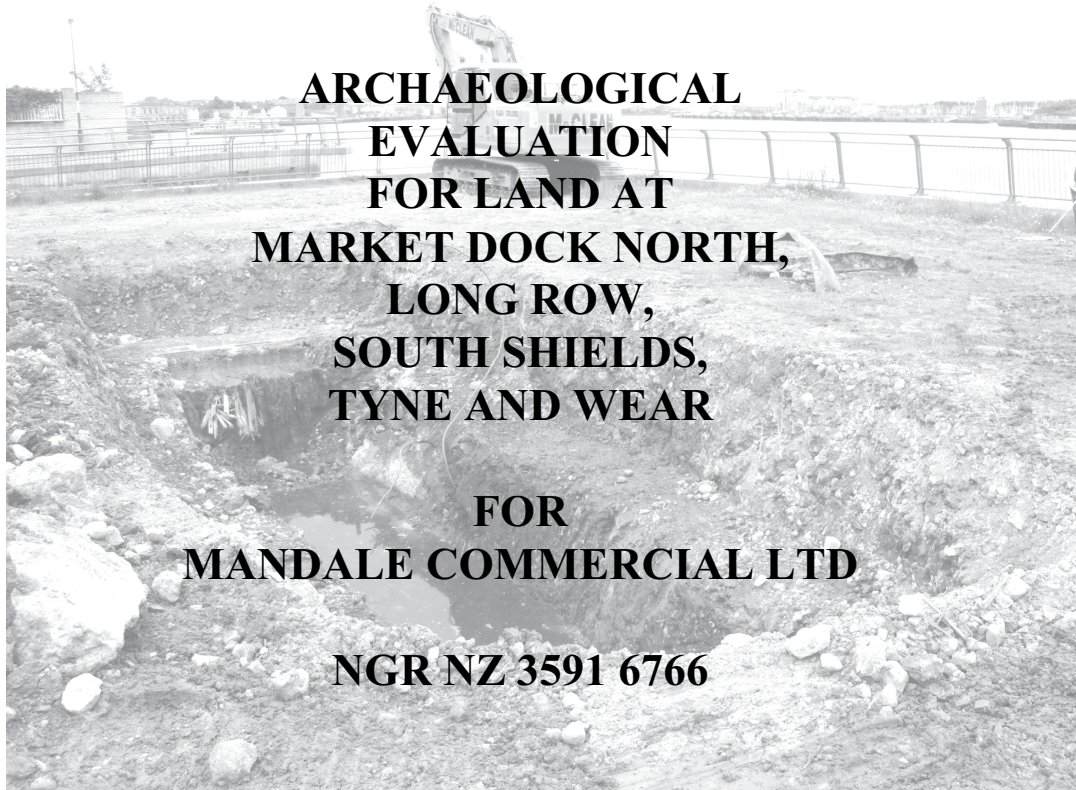

NORTH PENNINES ARCHAEOLOGY LTD

Client Report No. CP/520/07



OASIS REFERENCE: northpen3-29207

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EXECUTIVE SUMMARY

In July 2007, North Pennines Archaeology Ltd was commissioned by Mandale Commercial Limited to undertake an archaeological evaluation in advance of a proposed redevelopment of land at Market Dock North, Long Row, South Shields, Tyne and Wear (NGR NZ 3591 6766).

The site lies within an area of high archaeological significance. A recent desk-based assessment by NPA Ltd (Peters 2007) highlighted the presence of post medieval structures within the development site from cartographic sources, although there was some possibility that any deposits may have been truncated by reclamation works after 1997. As a result, Newcastle City Council's Archaeology Officer, Jennifer Morrison, recommended an evaluation prior to any development on-site.

A single trench measuring 10m by 1.5m was excavated, extending to a depth of 3m, corresponding with the maximum depth of the development foundations. This uncovered a timber structure (104) located at the southern extent of the evaluation trench. Re-analysis of the research outlined in the desk-based assessment on the site (Peters 2007) suggests this to be part of the southern wall of a dry dock, first documented in the area in 1759, and first illustrated in 1827. Though the rest of the trench was empty of anything barring modern backfill to the required excavation depth of 3m, the presence of this wall shows that potential for structural remains of archaeological significance to survive within the development area remains high; despite 1990s reclamation works in the area.

The presence of an early 18th century dock wall surviving within the development site, is of archaeological significance, and demonstrates high potential for further archaeological features to survive sub-surface. It is therefore recommended that further archaeological works are carried out on-site, in the form of an archaeological watching brief, to monitor all groundworks undertaken as part of the development, to locate and record other deposits that may survive.

ACKNOWLEDGEMENTS

North Pennines Archaeology Ltd would like to offer thanks to Mandale Commercial Limited for commissioning the project, and for their assistance throughout the work, and Gary Swarbrick of England and Lyle, Chartered Town Planners.

North Pennines Archaeology Ltd would also like to extend their thanks to Jennifer Morrison, Tyne and Wear Archaeology Officer, Newcastle City Council, for her advice throughout.

The archaeological evaluation was undertaken by Tony Liddell, Project Supervisor and Cat Peters. The report was written by Tony Liddell and Cat Peters. The illustrations were produced by Tony Liddell and Cat Peters. The project was managed by Matt Town, Senior Project Officer for NPA Ltd, and Frank Giocco, Technical Director for NPA Ltd. The report was edited by Matt Town.

1. INTRODUCTION AND LOCATION

1.1 LOCATION

- 1.1.1 The development site lies within an urban context on the frontage of the eastern bank of the River Tyne at Market Dock, Long Row, South Shields, Tyne and Wear (NGR NZ 3591 6766). It consists of a vacant plot of scrubland, previously developed, comprising made-up ground with recent growth of weeds and shrubbery.
- 1.1.2 The natural subsoil of the area consists of a glacial drift of brown boulder clay, the Lodgement Till. This survives up to 12m in thickness and dips down towards the River Tyne. Included within the boulder clay are lenses of sand and gravel that may have been deposited by streams in-between the successive glacial periods when the clay was deposited (Hurst 2006, 6).

1.2 CIRCUMSTANCES OF THE PROJECT

- 1.2.1 Planning permission has been granted for offices (4590 sq. m) and associated works at Market Dock. The riverside, from Tyne Dock to the seafront is designated as an area of archaeological potential in South Tyneside Council's UDP (policy ENV8/3). It has always been assumed that there must have been a Roman port associated with the supply base at *Arbeia* Fort; though the exact location of the port is unknown, a location around Mill Dam seems likely. The central focus of the medieval town was also at Mill Dam and archaeological evidence for medieval activity has been found to extend northwards from Mill Dam along the riverfront as far north as this site. The site is also of industrial archaeological interest. Low Dock, which is first referenced in 1754, once occupied part of the site. This was demolished in 1900 to make way for Brigham and Cowan's shipyard, which opened in 1905. A survey of the shipyards on the Tyne (The Archaeological Practice, 2003) stated that fragmentary sub-surface evidence for the earlier dock may still survive.
- 1.2.2 In 2007, NPA undertook an archaeological desk based assessment on behalf of Mandale Commercial Ltd to identify any significant areas of impact on the site (Peters 2007). The report concluded that the reclamation work undertaken by the Tyne and Wear Development Corporation may have had a significant impact on archaeological deposits, but the exact nature of this work is not known. Borehole evidence does not distinguish between modern made ground and archaeological deposits and it could be that archaeological remains survive. Medieval remains, such as those recorded in evaluation trenches in 1995 on parts of this site, are likely to be deeply buried and are likely to be disturbed by the proposed strip foundations for the new buildings which are to be built to a maximum depth of 3m. It is possible that fragments of post medieval dock related buildings or old dock walls have survived the reclamation works.
- 1.2.3 This report sets out the results of the fieldwork in the form of a short document outlining the findings of the evaluation, followed by a statement of the archaeological potential and recommendations for the area.

2. METHODOLOGY

2.1 SPECIFICATION

- 2.1.1 All fieldwork methodology was consistent with the relevant standards and procedures of the Institute of Field Archaeologists (IFA 2002), and generally accepted best practice.
- 2.1.2 All fieldwork was carried out in accordance with the Project Specification produced by Jennifer Morrison, Tyne and Wear Assistant County Archaeologist (Morrison 2007).

2.2 ARCHAEOLOGICAL EVALUATION

- 2.2.1 The evaluation consisted of the excavation of one evaluation trench, measuring 10m in length by 1.5m in width located and aligned as illustrated in *Figure 2*, and excavated to the depth needed for the development foundations, 3.0m. To conform with health and safety regulations and to avoid the need for shoring, the trench was stepped at the 1.5m depth interval, making the extents of the trench on the surface 13m x 4.5m.
- 2.2.2 In summary, the main objectives of the evaluation were:
- to establish the presence/absence, nature, extent and state of preservation of archaeological remains and to record these where they were observed;
 - to establish the character of those features in terms of cuts, soil matrices and interfaces;
 - to recover artefactual material, especially that useful for dating purposes;
 - to recover palaeoenvironmental material where it survived in order to understand site and landscape formation processes.

2.3 ARCHIVE

- 2.3.1 The full archive has been produced to a professional standard in accordance with the current English Heritage guidelines set out in the *Management of Archaeological Projects* (English Heritage 1991). The archive will be deposited within an appropriate repository, and a copy of the report given to the County Historic Environment Record, where viewing will be available on request. The archive can be accessed under the unique project identifier NPA 07 MDN-A.
- 2.3.2 North Pennines Archaeology support the Online Access to the Index of Archaeological Investigations (OASIS) project. This project aims to provide an online index and access to the extensive and expanding body of grey literature created as a result of developer-funded archaeological fieldwork. As a result, details of the results of this assessment will be made available by North Pennines Archaeology, as a part of this national project.

3. HISTORICAL BACKGROUND

3.1 HISTORICAL BACKGROUND

3.1.1 *This historical background is compiled mostly from secondary sources, and is intended only as a brief summary of historical developments likely to have affected the development area.*

3.1.2 **Romano-British (c. AD 43- AD 410):** the earliest deposits potentially existing within the development site are of Romano-British date. The location of a Roman fort in proximity to the development site may have implications in terms of Roman archaeology surviving within the site (Bidwell and Speak 1994). This is further enhanced by the as yet unknown location of the Roman port, known to have supplied the fort, and mentioned by, among others, Hodgson (1924, 12). According to Hodgson the remains of two Roman quays or landing-places have been encountered within Shields harbour. One was located in the North Shields / Wallsend area, the other uncovered towards the end of the 17th century at the western end of South Shields, supposedly close to the site of the Tyne Dock (ibid). Richmond thought the site might have been at Mill Dam (Richmond 1934) although Speak has postulated its location to be in the Fowler, Mile End Road environs (in Tyne and Wear Museums 1994, 54-57).

3.1.3 **Early Medieval (c. 410 AD- 1485):** despite several discoveries at the Roman encampment of post-Roman activity in the area, it is thought that there was a gradual movement of settlement away from the Roman nucleus towards the river, seen by the establishment of St. Hilda's church and religious community in AD 647-8. It is thought to be one of the earliest Christian Churches in the country, created when Oswin gave 'the land of one family' for its establishment (Hodgson 1924, 30). This is presumably the site of St. Hilda's glebe, seen on early mapping, and thought to lie close to the extant St. Hilda's Church. There is the possibility therefore of medieval activity extending into the development site.

3.1.4 **Post-Medieval (c. AD 1485- 1900):** the area of the riverbank was extensively utilised by industries during the 18th and 19th centuries, documented by earliest evidence for Low Dock, a ship builders yard occupying part of the development site in 1754. Shipbuilding in the area boomed, with 18 separate shipbuilding yards operating in South Shields in 1856. Several of these sites, and associated works lie close to the development area. During 1855, a total of 178,812 ships had been docked along the Tyne, 65,359 of which were moored at South Shields (Salmon 1856, 149), showing how important it was for shipping at this time. During the 19th century, the whole area west of the Market Place was the manufacturing district (Hodgson 1924, 81). Early Ordnance Survey Mapping, and even earlier plans of South Shields, show the locations of these in relation to the development site (Peters 2007). This dramatic increase in industry lead to a dramatic increase in population, and many small and shabby dwellings were constructed during the 18th and 19th centuries. Subsidiary small industries to serve the growing community in the form of brick works, a tilery and a pottery were established, as well as more essential day-to-day provisions which were catered for in the area, in the form of a corn mill, two breweries and a Primitive

Methodist Meeting House to meet spiritual needs. These were all situated just to the east of the development site.

- 3.1.5 **Modern (1900- present):** Brigham and Cowan bought their premises at South Shields in 1905, and their yard contained the development site. The construction of a graving dock in 1955 required a major clearance of the ballast hills in the area to the east of the development site. The dock lay within the development site itself, and measured 218m in length by 30m in width and was constructed at an angle of 45 degrees from the axis of the Tyne (Tyne and Wear Museums 1994). During its construction, glacial boulder clay was observed with lenses of sand and gravel upon a deep soft sandy stratum (Maunsell 1995). Only records detailing the method of construction, rather than the results of boreholes and trial pits, survive (ibid).
- 3.1.6 Recent reclamation works within the development site are known to have been undertaken since 1996 by the Tyne and Wear Development Corporation. That business has since closed, and its records are unobtainable. The client, Mandale Commercial Ltd. made available all recent documentation regarding the site, including an environmental desktop study (Robinson Environmental Ltd 2003a), a ground investigation report (Robinson Environmental Ltd 2003b) and a document outlining recommendations for further site investigation (Robinson Consulting 2006). The results of the 2003 works were that the conditions of the development site comprised made ground of varying depths between c.2.6m and c.6.35m. The made ground generally consisted of a mixture of loose to medium dense disturbed natural strata and anthropogenic debris (e.g. clay, sand, gravel, cobbles, boulders, ash, slag, brick and concrete, with occasional timber, paper, ceramic fragments, waste plastic and metal; Robinson Environmental Ltd 2003b, 15). These findings, were explained by the reclamation works as they “primarily comprised the removal of large foundations, substructures etc., as well as any significant areas of ‘contamination’, with the remaining made ground being replaced and partially compacted (generally in the upper layers) and a new surfacing layer c.0.5m thick, which generally concurs with the evidence of the boreholes and trial pits on this side of the site” (ibid, 16). This evidence suggests a coherent scheme of reclamation, involving the removal and destruction of all extant structures and associated foundations, before the importing of modern material, which was deposited over the site and levelled over, to create a level plateau. The borehole evidence does not distinguish between modern made ground and archaeological deposits, and it could be that earlier deposits, of the pre-industrial period still survive sub-surface.

4. EVALUATION TRENCH RESULTS

4.1 THE EVALUATION TRENCH



Plate 1. The evaluation trench, looking north-east.

- 4.1.1 The trench was positioned in the southern extent of the development area, on a north-south alignment in order to target the footprint of the southernmost building of the proposed development. It was accurately located with respect to Ordnance Survey Data. The location of the trench can be seen in *Figure 2*, with the development site's overall location shown in *Figure 1*.
- 4.1.2 The trench was excavated by machine to a total length of 10m and a width of 1.5m at base (13m x 4.5m on the surface, stepped in at 1.5m depth by 1.5m). The trench was excavated to a depth of 3m, the depth required for the foundations of the new development.
- 4.1.3 Initial machining removed **(100)**, which consisted of a highly compact modern surface of broken and crushed stone and concrete to a depth of 1.46m. This deposit is presumably a result of the clearance of the site in the 1990s by the Tyne and Wear Development Corporation. Below this for the majority of the trench was a mixed dark brown clay with modern inclusions consisting of concrete, brick, metalwork and concrete **(102)**. The depth of this deposit was not ascertained as it continued below the required depth of the trench. Despite the stepping of the trench **(102)** was noted to be very unstable. All health and safety precautions were taken when recording this trench and access was limited due to this.
- 4.1.4 At the southern end of the trench, the remains of a timber wall **(104)** were encountered running east-west across the trench and packed on both north and south sides by crushed concrete **(103)**. The base of the wall extended beneath the depth needed to be excavated so it was impossible to ascertain full height of the wall or even if a cut

existed for the structure, and the sides of the trench were subject to regular collapse, making it unsafe to clean the wall or investigate it further (Plate 2).

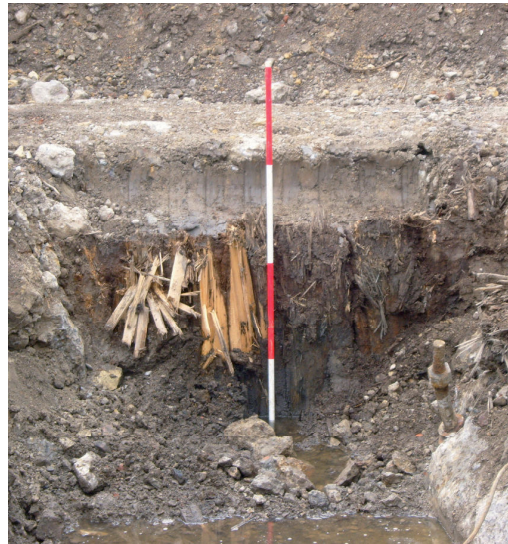


Plate 2. Timber (104) looking south during excavation.

- 4.1.5 The structure was constructed from flat timbers, positioned vertically in a row, with no gaps in-between. Its thickness (0.25m) was suggestive of a substantial structure, rather than a modern backfill deposit as seen abutting it (103). Comparing the location of the structure (104) with cartographic sources located by previous archaeological research (Peters 2007) suggests that this ties in with features known to have once existed within the development site, specifically the Dock, first depicted on Wood's Plan of South Shields in 1827, and accurately surveyed by the Ordnance Survey in 1855 and 1898. Furthermore the earliest documentary evidence for a dock occurring in the general area known as 'Low Dock' was in 1759, when it is referred to as a 'dry dock' (Flagg 1979, 27-44). Documentary evidence for this dock continues until a newspaper article in the Gazette in January 1905 states that

“the latest development of industrial enterprise in South Shields is the making of a new repairing dock in the east end of the town by Messrs Brigham and Cowan. The new dock is parallel with Wapping Street and a part of the dock, it is interesting to note, covers the old ‘Low Dock’. The new yard includes a quay of 700 foot, where vessels may be tied up without interference with the dock entrance. The new buildings include a generating house for an independent supply of electric power” (quoted in Peters 2007, 29).

- 4.1.6 The timber construction of the structure can be explained by its early 18th century origins, and it is interesting to note that it was a dry dock originally. The location of the timber structure, in relation to the 'Low Dock' shown on First Edition Ordnance Survey mapping of 1855, (Figure 2) gives further credibility to this hypothesis. The newspaper article shows that Brigham and Cowan developed the site prior to the erection of their new works in 1905. Although the new dry dock constructed at that

time cut through the centre of the development site, on a north-north-west to south-south-east alignment, it is clear that archaeological deposits not truncated by this construction could survive. The occurrence of crushed concrete deposits (**103**) abutting the timber dock wall structure (**104**), and abutting that, a mixed backfill deposit (**102**) is suggestive of a deliberate infilling process, to fill-in the pre-existing dock and level the area before the construction of Brigham and Cowan's buildings seen on Third Edition Ordnance Survey Mapping of 1915. This would date both (**102**) and (**103**) to the early 20th century, and suggests that further archaeological deposits, not truncated by the 1905 dry dock may survive at c. 2m sub-surface, as shown by the survival of the early dock wall.

- 4.1.7 The top of the timber structure (**104**) lay at Ordnance Datum of 3.57m OD, which can be seen in *Figure 3*. No further deposits or structures of archaeological interest were noted. No artefacts were revealed, or stratigraphy suitable for environmental analysis, were uncovered.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

- 5.1.1 The only structure of archaeological interest was the timber structure (104) located at the southern extent of the evaluation trench. Although its true extents and depths could not be ascertained due to the restrictions on the size and depth of the trench, and the section of structure that was visible could not be fully investigated due to health and safety hazards associated with the trench, the top of the structure lay at 3.57m OD. Re-analysis of the research outlined in the desk-based assessment on the site (Peters 2007) suggests this to be part of the southern wall of a dry dock, first documented in the area in 1759, and first illustrated in 1827. Though the rest of the trench was empty of anything barring modern backfill to the required excavation depth of 3m, the presence of this wall shows that potential for structural remains of archaeological significance to survive within the development area remains high; despite 1990s reclamation works in the area.

5.2 RECOMMENDATIONS

- 5.2.1 Due to the presence of the timber wall, representing an early 18th century dry dock, in the southern extent of the trench, it is recommended that a watching brief take place to record the extents and potential date and useage of this structure during development of the site. The presence of the structure also indicates the potential for further archaeological deposits remaining on site to be high, so a watching brief covering further foundation cutting is also recommended.

6. BIBLIOGRAPHY

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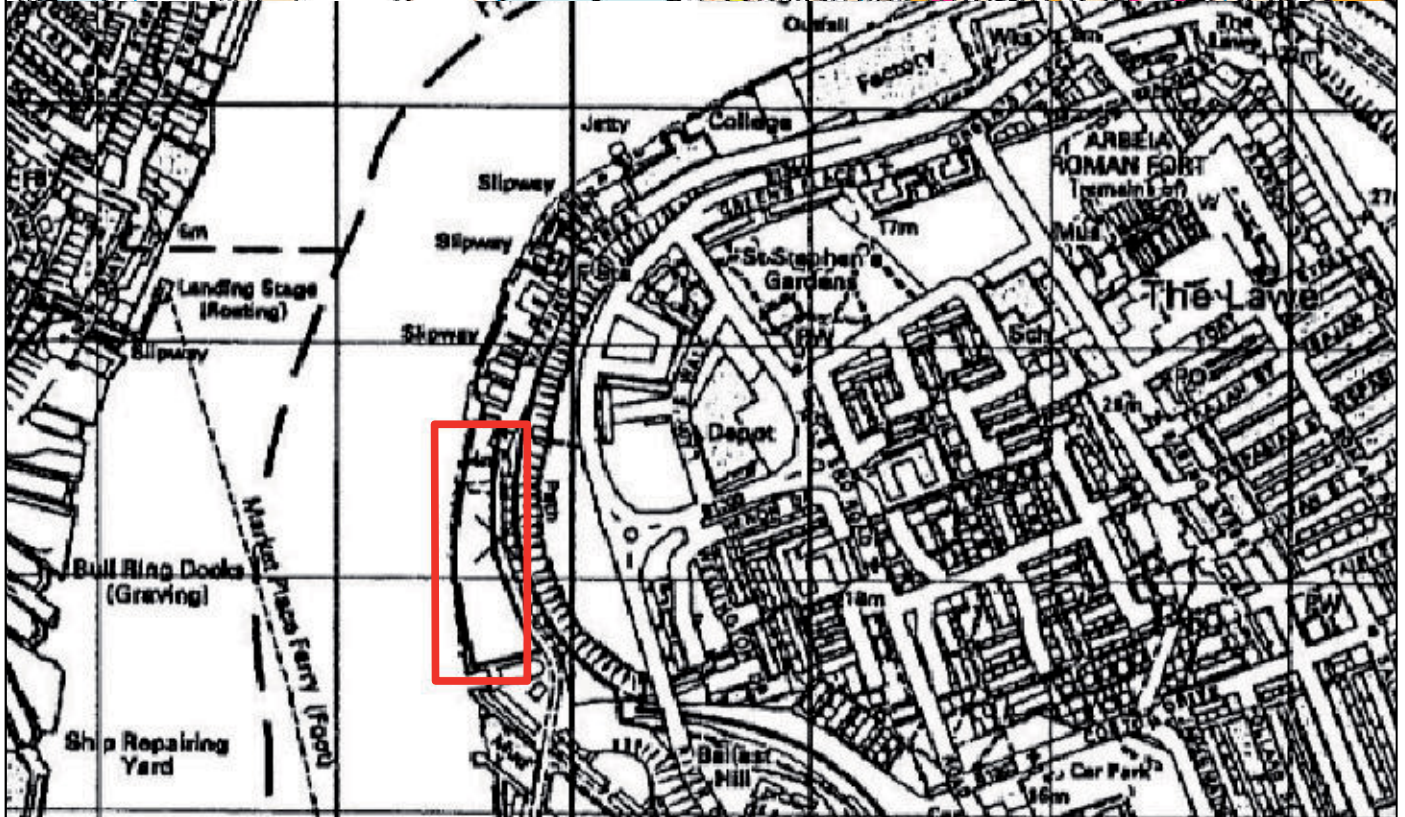
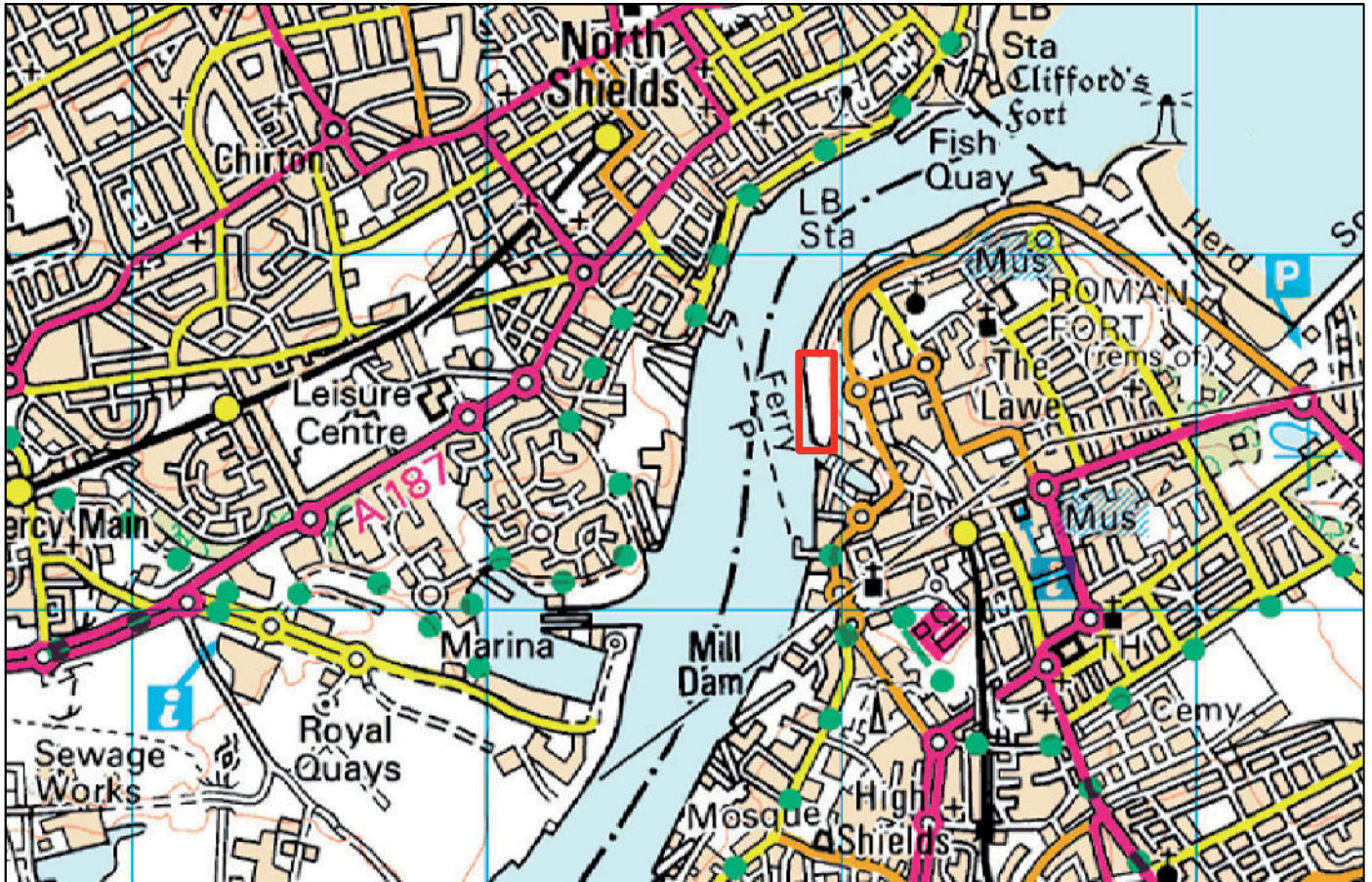
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APPENDIX 1: CONTEXT LIST

Context	Type	Description
100	Deposit	Highly compacted crushed stone and concrete.
101	Natural	<i>Natural subsoil was not observed in this evaluation.</i>
102	Deposit	Mixed dark brown clays, stone, brick and crushed concrete.
103	Deposit	Crushed concrete.
104	Structure	Wooden remains, presumably of a modern or post-medieval structure.

Table 1. List of Contexts.

APPENDIX 2: FIGURES



North Pennines Archaeology Ltd
2007

PROJECT: Market Dock, South Shields
 SCALE: NA
 REPORT No: CP 520/07
 CLIENT: Mandale Properties Limited
 DRAWN BY: TL
 DATE: July 2007
 FIGURE No: 1

KEY:



Development Area

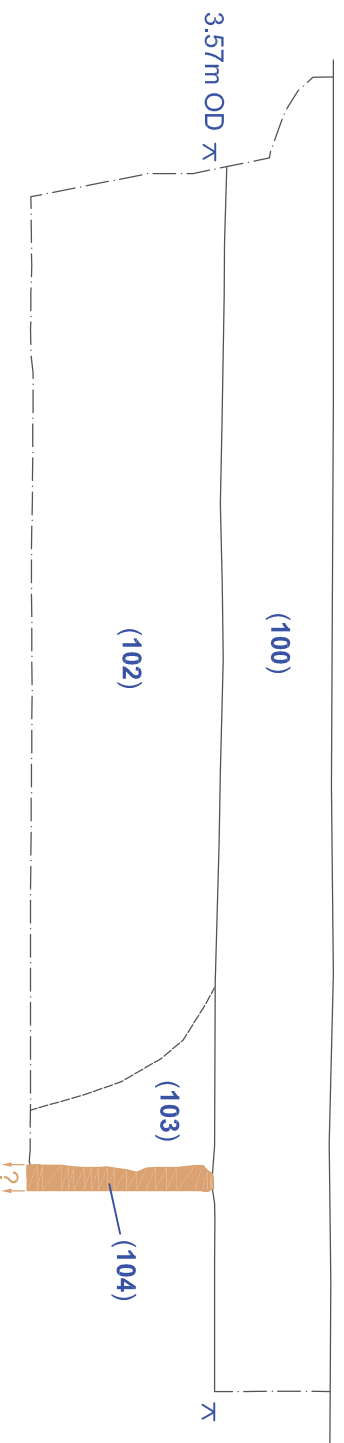
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Figure 1: Location of Development Area



 <p>North Pennines Archaeology Ltd 2007</p>	<p>PROJECT: Market Dock Evaluation, South Shields</p> <p>SCALE: 1:500</p> <p>REPORT No: CP 520/07</p> <p>CLIENT: Mandale Commercial Limited</p> <p>DRAWN BY: CP</p> <p>DATE: July 2007</p>	<p>LOCATION:</p> 	<p>KEY:</p>  Excavation area  Timber Structure (104)
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Figure 2: Location of Trench and Timber Structure (104) in relation to First Edition Ordnance Survey Mapping, 1850





North Pennines Archaeology Ltd
2007
Market Dock, South Shields

COMMISSIONED BY:
Mandale Commercial Limited

SCALE: 1:100

DRAWN BY: TL

DATE: July 2007

KEY:
 Timber Structure
 Ordnance Datum Height

REPORT No: CP 520/07

FIGURE No: 3

Figure 3: West-facing section of Evaluation Trench