



CFA ARCHAEOLOGY

Professional cultural heritage consultants - branches nationwide
info@cfa-arch.co.uk



CAPABILITY
FLEXIBILITY
ASSURANCE

New Wear Footbridge Sunderland Tyne and Wear

Archaeological Watching Brief
Report No. 4414

Adrian Arenas BA MA PCIfA





CFA ARCHAEOLOGY LTD

info@cfa-arch.co.uk
www.cfa-archaeology.co.uk

Author	Adrian Arenas BA MA PCIfA
Illustrator	Sam Griffith BA Hons MSc PhD
Editor	Phil Mann BA MCIfA
Approver	Phil Mann BA MCIfA
Commissioned by	Volker Stevin Ltd
Version	V1
Date Issued	March 2024
Grid Ref	NZ 39367 57582 & NZ 39390 57327
Planning Application No.	20/02391/LP3
OASIS Reference	cfaarcha1-523603

This document has been prepared in accordance with CFA Archaeology Ltd standard operating procedures.

New Wear Footbridge Sunderland Tyne and Wear

Archaeological Watching Brief

Report No. 4414

CONTENTS

1. INTRODUCTION	3
2. WORKING METHODS.....	6
3. RESULTS	7
4. DISCUSSION	18
5. CONCLUSION.....	19
9. BIBLIOGRAPHY	20

APPENDICES

Appendix 1:	Context Summary
Appendix 2:	Written Scheme of Investigation
Appendix 3:	Specification for the Landing Points
Appendix 4:	Specification for the North and South Bridge Piers
Appendix 5:	Specification for the Ground Investigation Test Pits
Appendix 6:	OASIS Summary

FIGURES

Figure 1:	Site Location
Figure 2.1:	Area 1 Trial Pit Locations
Figure 2.2:	Areas 2 & 3 Trial Pit Locations
Figures 3.1-3.61:	Photographs

SUMMARY

An archaeological watching brief was carried out by CFA Archaeology Ltd between May and November 2023 at the New Wear Footbridge in Sunderland, Tyne and Wear. The watching brief monitored the groundworks in three areas of proposed development: the site of two crane pads and a site compound, the north bridge pier and landing point and the south bridge pier. Archaeological remains dating from the late post-medieval and modern eras, in particular from the early nineteenth century onwards, were encountered on the northern and southern banks and are likely related to the industrial development of the River Wear in the City of Sunderland.

1. INTRODUCTION

This report presents the results of an archaeological watching brief undertaken by CFA Archaeology Ltd (CFA) between the 19th May and the 16th November 2023 during the excavations for the construction of a new High-Level Footbridge across the River Wear at Sunderland, Tyne and Wear (Fig. 1, NGR NZ 39367 57582 & NZ 39390 57327).

The work was commissioned by Volker Stevin Ltd on behalf of Sunderland City Council (SCC) and was carried out in accordance with a written scheme of investigation (WSI) produced by Durham University Archaeological Services (Swann 2020, Appendix 2) which detailed the three areas of proposed development required to be monitored which included the site of two crane pads and a site compound.

In addition, three specification documents were produced by the Tyne and Wear Archaeology Service (TWAS) for the archaeological monitoring of the landing points (Laidler 2022, Appendix 3), the location of the bridge piers (Laidler 2022, Appendix 4), and for test pitting (Laidler 2022, Appendix 5). The watching brief was carried out in order to identify any archaeological remains in advance of the proposed construction of the New Wear Footbridge.

1.1 Site Location and Description

The proposed High-Level Bridge will span the River Wear, its alignment following the Keel Line artwork from the former Vaux Site at the south to Sheepfolds and the Stadium of Light at the north, and immediately west of Grade 2 Listed Wearmouth bridge and Monkwearmouth Railway Bridge. The southern landing point aligns with the recently installed Keel Line artwork, which runs parallel to the eastern elevation of The Beam (the first Vaux site development and is centred at c. NZ 39390 57327). The last 25m of the Keel Line will be on the footbridge.

The proposed footbridge will be an approximately 250m long steel-concrete composite structure, at a height of approximately 30 metres. It will have an overall width of 10m of which 9.4m will be used by the unsegregated pedestrian and cyclist shared traffic. A headroom clearance of minimum 25m above mean high water springs over a width of 30m will be specified.

The bedrock geology within the site is of the Roker Formation – Dolostone, a sedimentary bedrock formed between 272 and 252 million years ago during the Permian period. No superficial deposits are listed for the site (British Geological Survey 2023).

1.2 Historical and Archaeological Background

The historical and archaeological background was provided by Archaeological Services Durham University within the written scheme of investigation (Swann 2020) and by the Tyne and Wear Archaeology Service within the specification documents (Laidler 2022a, 2022b and 2022c), and is summarised here.

1.2.1 Prehistoric Period

Extensive remains of prehistoric settlement dating from the Mesolithic through to the Iron Age have been recorded in the flat upper plateau above the cliffs on the south bank of the river. Evidence of activity from the Mesolithic through to the Bronze Age has also been revealed during the excavations ahead of development for The Beam (Archaeological Services, 2019). Further evidence of prehistoric occupation was recorded in the trial trenching phase across the former Vaux site (Glover & Allen, 2004). There is no known prehistoric or Romano-British activity within the proposed development Areas 1, 2 and 3 or the location of the bridge piers, and little evidence of Roman occupation has been identified within Sunderland.

1.2.2 Medieval Period

The proposed development areas were probably used as agricultural land during the medieval period. The name 'Sheepfolds' with which the area to the north-east of Area 1 has been recorded on historic maps likely dates to the medieval period. South of the river, traces of medieval ridge and furrow cultivation have been recorded on the upper plateau above areas 2 and 3.

1.2.3 Post-Medieval Period

Both banks of the river underwent vast development during the post medieval period. On the north embankment, map evidence illustrates the presence of a shipyard on Area 1, founded in the early 19th Century and closed in 1933. Lime kilns, foundries, potteries and timber yards are visible on the historic maps from the middle of the 19th century in the wider area. A wagonway constructed in 1790-1800 ran from the upper industrial areas down to the river.

South of the river historic maps indicate an established industrial activity by 1827. Waggonways ran into the area from the west, through Area 3 to Area 2. The Newbottle Drops are labelled on the riverside, on the north edge of Area 2. The watercourse of Galley's Gill runs through Area 3.

By 1851 the waggonways have been developed and a new waggonway runs through Area 3 from a coal depot to the west. The drops to the east in Area 2 have also been developed and are now labelled Lambton Coal drops. Galley's Gill is no longer shown and has been culverted by this date.

The Lambton Waggonway (HER 2833) was built in 1815 to bring coal from inland to the Lambton Drops, northern terminus of the railway, to the north of Areas 2 and 3. From this riverside location the coal was then loaded onto sea-going colliers. Between 1865 to 1890s major modifications to the area occurred and by the time of the 1897 OS map railway lines cover most of the southern riverside. An archaeological evaluation conducted immediately east of Area 2 in 2017 (Archaeological Services, 2017) revealed a fragment of a brick wall, a cast iron pipe trench, and a large timber post set into bedrock, features likely related to the former railways on the site.

1.3 Previous Archaeological Work

Archaeological trial trenching has been undertaken across the wider area, but no intrusive archaeology has been undertaken within the areas considered here.

A scheme of archaeological works was undertaken on the area north of the river (NAA 2017). In 2020 Archaeological Services Durham University produced an archaeological desk-based assessment for the wider area of the former Vaux Site and around the proposed development (Archaeological Services 2020).

1.4 Project Aims

The general aims of the watching brief were:

- To record and advance understanding of the significance of the archaeology to be lost as a result of the development of the site.
- To investigate the extent, character and chronology of the archaeological features present on the site, in order to understand and interpret them with reference to comparable sites.

The project was carried out with reference to the relevant research agendas of the North-East Regional Research Framework for the Historic Environment (NERRF). The following research agendas of the published NERRF includes the following key research priorities which were hoped to be addressed in part by this project:

- Mesolithic
 - PM3: How can we better understand the Mesolithic use of lithic technology?
 - PM6: How far was there continuity between the Mesolithic and the Neolithic in north-east England?
 - PM10: How can we gain a better understanding of Mesolithic activity and occupation sites in the wider landscape?
- Neolithic and Early Bronze Age

- NB9: How can we develop and improve our chronologies for Neolithic and Early Bronze Age in north-east England?
- NB10: How can we better understand landscape and settlement in the Neolithic and Bronze Age in both the uplands and lowlands?
- Late Bronze Age and Iron Age
 - La1: How can we improve our understanding of the chronology of Late Bronze Age and Iron Age north-east England?
 - La2: How can we improve our understanding of late prehistoric settlement and settlement patterns?
- Post-medieval, all research agendas from Pmed10 to Pmed19 related to Industrialisation, with particular interest in:
 - Pmed10: Industrialisation – Early coal industry and coal use
 - Pmed11: Industrialisation – Early railways
 - Pmed14: Industrialisation – landscapes
 - Pmed19: Industrialisation – intensification 1790-1830

2. WORKING METHODS

The watching brief monitored the excavation works in three development areas (Fig. 1): Area 1 on the north embankment, for the construction of the North Crane Pad, and centred at c. NZ 39351 57562; Area 2 on the south embankment, for the construction of the South Crane Pad, and centred at c. NZ 39331 57373; and Area 3 also on the south embankment, for the construction of the South Compound, immediately to the north-west of Area 2 and centred at c. NZ 39289 57408.

Archaeological monitoring was also required for additional groundworks at the sites of the bridge piers and landing points. The northern bridge pier is located to the SSE of Area 1, centred at c. NZ 39374 57504. The southern bridge pier is located to the north-east of Area 2, centred at c. NZ 39386 57378. The northern landing point is situated on Easington Street, adjacent to the Grade 2 Listed former North Eastern Railways Stables building, and centred at c. NZ 39367 57582.

CFA Archaeology Ltd is a registered organisation (RO) with the Chartered Institute for Archaeologists (CIfA). CFA Archaeology follows all relevant CIfA and Historic England Standards and Guidance (CIfA 2022 and Historic England 2015).

Archaeological remains were recorded by means of photographs, drawings, and written records conforming to CIfA standards (CIfA 2020a) and CFA's quality manuals.

The project archive, comprising all CFA record sheets, plans, and reports will be prepared to current guidelines (CIfA 2020b), ensuring the proper transfer of ownership.

Phase	File/Box No.	Description	Quantity
Watching Brief	File no. 1	Context sheets	42
		Context register sheets	6
		Trench sheets	15
		Drawing sheets (A3)	2
		Sheet register	1

		Field Drawing register sheets	1
		Digital photographic register sheets	21

Table 1: Contents of the Watching Brief Archive

A summary of the results of archaeological works will be submitted for inclusion in OASIS (Appendix 6). The OASIS reference is cfaarcha1-523603.

3. RESULTS

Archaeological monitoring was carried out on groundworks related to the proposed development of the New Wear Footbridge. These works comprised the excavation of three working areas (Areas 1, 2 and 3), bridge piers and landing points (abutments). A range of archaeological remains were recorded in Area 2, at the site of the north and south piers, and the site of the north abutment. No archaeology was encountered during the excavation of the remaining areas. A summary of contexts from the different areas of excavation can be found below. The following results should be read in conjunction with Figures 1-3.

The required depth for the excavations on each of the areas was unknown prior to the commencement of the work. Every area required a different level of excavation according to the purpose of the job that was going to be carried out in it by the contractors. Apart from Area 3, all the other areas required different phases of the groundworks, affecting both the division of the proposed development areas into smaller sub-areas and the reduction of the soil levels, as the contractors deemed necessary for the development of the project.

The topography of the North Abutment, North Pier and South Pier together with the complexity of the groundworks that were carried out in them determined the limitations of the archaeological monitoring, due to the need to comply to the Site Safety Standards.

North Crane Pad (Area 1)

Area 1 (Figs. 2.1 and 3.1) corresponds to the location of the heavy lifting and general working platforms on the north embankment of the river. Prior to the full excavation of the area, four trial pits were excavated by the groundworks' contractors to determine ground conditions. The pits were 4m long by 2m wide and to depths varying between 0.4m to 0.75m, and none of them uncovered archaeological remains or exposed the natural geology (Fig. 3.2).

The full excavation of Area 1 was carried out from west to east. Due to the topography at the southern edge of Area 1, a north to south orientated steep slope, the whole area was excavated in decks to create a 'safe ground' for the layout of a geotextile terram membrane and stone for the construction of the crane pad and working platform. A total of six decks were excavated, measuring between 2.5m to 3m wide and 0.4m to 0.7m high, and none of them exposed the natural geology. The groundworks revealed two asbestos 'hotspot' areas, on the north-west and the south-east corners of Area 1.

A west to east tarmac path and foundation layer of gravels were removed near the northern edge of Area 1, remains of which were still visible on the west facing section of Area 1 (Figs. 3.3-3.6).

Topsoil **101** consisted of dark greyish brown sandy silt, loose, with a heavily rooted grass cover and inclusions of modern refuse, metal, building waste and asbestos. Topsoil **101** had a depth between 0.08-0.15m and overlaid Made Ground layers **102** and **103**.

Made Ground **102** consisted of dark grey-black sandy silt, friable, with frequent inclusions of coal and ashes. It also contained moderate remains of construction waste (e.g. brick fragments, concrete lumps), metal and modern refuse. Made Ground **102** was only present on the south-eastern corner of Area 1, overlaid by Topsoil **101** and overlaying Made Ground **103**.

Made Ground **103** consisted of mid-yellow-orange mottled brown silty clay, friable, with inclusions of construction waste (e.g. modern brick and large lumps of concrete bound stone). Made Ground **103** was overlaid by Topsoil **101** and Made Ground **102** and overlaid Made Ground **104**.

Made Ground **104** consisted of dark greyish brown sandy and clayey silt, with inclusions of building waste and metal. It was overlaid by Made Ground **103**.

No archaeological features were identified in the groundworks monitored at Area 1.

South Crane Pad (Area 2)

Area 2 (Figs. 2.2 and 3.7) corresponds to the location of the heavy lifting and general working platforms on the south embankment of the river. Prior to the full excavation of the area, five trial pits were excavated by the groundworks' contractors to determine ground conditions. The pits were 2.3m long by 2.2m wide and to depths varying between 0.36m to 0.7m, and none of them uncovered archaeological remains. Four of the five pits exposed natural geology (Fig. 3.8), the last one exposed an artificial layer of orange sandy gravels similar to others located during later excavation works in the area and acting as foundation layers for modern tarmac paths or former underground services.

Area 2 was divided into sub-areas that affected the phases of excavation. The order in the excavation of the different sub-areas followed contractors' demands according to the final purpose of each of those sub-areas. The heavy lifting platform sub-area located in the centre of Area 2 was excavated first (Fig. 2.2). Prior to the full excavation, three north to south orientated trial trenches of approximately 20m long by 2m wide were stripped on the eastern edge, centre, and western edge of the heavy lifting platform sub-area, to test ground conditions and depth levels (Fig. 3.9). Natural geology was exposed at the southern end of the three trenches and archaeological features were revealed towards the northern end of the central and western trenches. They were initially photographed, drawn, and recorded as a preventive measure from

further damage during full excavation. These features include Walls **204** (Fig. 3.10), **206** and **207**, commented below. The full excavation of the heavy lifting platform covered an area of approximately 38m by 22m, and to a maximum depth of 0.80m, exposing the majority of the archaeological features recorded in Area 2.

The completion of the full excavation of the heavy lifting platform was followed by the full excavation of the rest of the sub-areas. First, the eastern general working platform (Fig. 2.1), of approximately 35m by 29m, and depths varying between 0.15m and 0.25m. No archaeological remains were revealed, and the natural geology was not exposed in this sub-area (Fig. 3.11).

The excavation of the corridor immediately south of the heavy lifting platform was carried out from west to east (Fig. 2.1). It covered an area of approximately 38m long by 8m wide, and to depths varying between 0.15m and 0.35m that exposed areas of natural geology or Made Ground **202** on the shallower end near the southern edge. No archaeological remains were revealed.

The western general working platform was the last of the sub-areas to be excavated in Area 2 (Fig. 2.1). It covered an area of approximately 60m by 27m, with depths between 0.15m and 0.6m. No natural geology was exposed, only Made Ground **202** across the whole extension of the sub-area. Archaeological remains were revealed on the north-eastern corner, a continuation to the west of the features already recorded in the heavy lifting platform sub-area and commented below (Walls **207** and **208**, Fig. 3.12).

Each sub-area was excavated individually and after completion of excavation works, a geotextile terram membrane followed by stone were laid out to create 'solid ground' for the working platforms before starting groundworks on the next sub-area.

The northern edge of Area 2 presented a west to east orientated path or narrow road which was removed to achieve the area extension requirements. It was composed of tarmac overlaying a foundation layer of gravels and modern concrete overlaying former buried services. Several north to south orientated 'block-paved' paths were also removed, overlaying the same kind of foundation layer of gravels. All these modern features overlaid Topsoil **201** and Made Ground **202**. Several archaeological features were documented during the excavation of the different sub-areas in Area 2 and are commented below.

Topsoil **201** consisted of mid-greyish brown sandy and clayey silt, friable, with a heavily rooted grass cover and inclusions of modern construction waste and metal, and a depth ranging between 0.08-0.15m. It overlaid Made Ground layer **202**, which consisted of dark grey-black sandy silt, friable, with frequent inclusions of coal and ashes. It also contained moderate remains of construction waste (e.g. brick fragments, concrete lumps), metal and modern refuse. Iron railroad nails and fragmented wooden sleepers from railway tracks were also identified. Made Ground **202** overlaid natural geology **203** and all the archaeological features recorded in Area 2 and commented below. Natural geology **203** consisted of light-yellow sandy silt, friable to compact, with very frequent small (0.05-0.1m) to large (0.5-0.8m) limestone inclusions.

Wall **204** (Figs. 3.14 and 3.15) was part of an east to west orientated structure which measured 35m in length, 0.60m in width, and was exposed to a maximum height of 1.2m (Fig. 3.13). It was composed of perfectly squared limestone blocks, sizes varying from 0.25m long by 0.2m wide by 0.1m deep to 0.85m long by 0.6m wide by 0.28m deep. Smaller and irregularly shaped limestones were visible between the larger blocks filling the gaps in between the courses, bonded by a very degraded pinkish yellow lime mortar. Due to the project depth level requirements, most of Wall **204** was only uncovered to a maximum depth of 0.45m. But two trial pits to the south of the wall exposed the structure to a height of 1.2m where up to eight courses were identified. The south elevation of the wall revealed a perfectly squared face that would likely be replicated on the uncovered north elevation, and the remains of a pale grey lime render that probably covered the whole extension of the wall were still visible.

Approximately 2.5m to the south and parallel to it was Wall **206** (Figs. 3.14 and 3.15), very similar to **204** but in a more degraded condition. They seemed to belong to the same structure or have served to a common purpose. Wall **206** followed the same east to west orientation and measured 10m in length by 0.45m in width. It was exposed to a maximum height of 0.3m where only two courses were identified. It was composed of limestone blocks which appeared fragmented and damaged, sizes varying from 0.25m long by 0.2m wide by 0.1m deep to 0.65m long by 0.35m wide by 0.3m deep. Smaller and irregularly shaped limestones were visible between the larger blocks filling gaps in between the courses, bonded by a very degraded pinkish yellow lime mortar. The remains of a pale grey lime render were still visible at the top of some of the stones. The preservation condition of the wall was particularly compromised on the eastern end where the last three metres of the structure only survived in rubble form.

Brick Wall **207** (Figs. 3.16-3.17, 3.19 and 3.21) was found approximately 1.70m north of **204**, parallel to it on an east to west orientation. It measured 41m in length by 0.4m in width and was exposed to a maximum height of 0.33m, where up to four courses were identified. The bricks conformed to imperial measurements, 9in (235mm) length by 4.5in (115mm) width by 3in (80mm) depth and carried the inscription 'Lambton Fence House' in the frog. All bricks were laid on bed in a combination of stretcher and header, showing different bonding techniques along the extension of the wall, depending on the course or with changes sometimes occurring even within the same course. The bonding material was a pale yellow-grey lime mortar. Wall **207** continued to the east beyond the northern edge of Area 2.

Approximately 2.6m to the north and parallel to it was similar brick Wall **208** (Figs. 3.16-3.20). They seemed to belong to the same structure. Wall **208** followed the same east to west orientation and measured 38m in length by 0.4m in width. It was exposed to a maximum height of 0.4m revealing up to five courses. The bricks conformed to imperial measurements, 9in (235mm) length by 4.5in (115mm) width by 3in (80mm) depth and carried the inscription 'Lambton' in the frog (Fig. 3.18). All bricks were laid on bed in a combination of stretcher and header. Different bond techniques were identified along the extension of the wall depending on the course or with changes sometimes occurring even within the same course. An extra row of bricks was also recorded towards the eastern end of the wall and on the north elevation, the stretchers lain on

bed and giving the feature a total width of 0.55m. The bonding material was a pale yellow-grey lime mortar. Wall **208** continued to the east beyond the northern edge of Area 2.

Brick Wall **209** (Fig. 3.22) was revealed in perfect alignment to Wall **207**, approximately 18m to the west and as a likely continuation of the same structural feature. Nevertheless, modern services (now out of use) seemed to have truncated the structural remains between **207** and **209**. Wall **209** followed the same east to west orientation and measured 4m in length by 0.4m in width. Due to the project depth level requirements, it was only exposed in plan. The bricks conformed to imperial measurements, 9in (235mm) length by 4.5in (115mm) width by 3in (80mm) depth. Remains of modern concrete lain over the bricks were recorded, likely related to the layout of the modern services mentioned above.

South Compound (Area 3)

Area 3 (Figs. 2.2 and 3.23) corresponds to the location of the South Site Compound, immediately to the NNW of Area 2. It was excavated in a single phase of work, and it comprised an elongated irregularly shaped area of approximately 70m long by 15 to 20m wide. The total depth of the excavation was a maximum of 0.25m below ground level. At this level, first a geotextile terram membrane and then stone were laid out to create 'solid ground' for the compound.

Topsoil **301** consisted of mid-greyish brown sandy and clayey silt, friable, with a heavily rooted grass cover and inclusions of modern construction waste and metal, and a depth ranging between 0.08-0.15m. Topsoil **301** overlaid Made Ground layer **302**, which consisted of dark grey-black sandy silt, friable, with frequent inclusions of coal and ashes. It also contained moderate remains of construction waste (e.g. brick fragments, concrete lumps), metal and modern refuse. Iron railroad nails for railway tracks were also identified.

No archaeological features were identified within Area 3.

Site of North Pier

The North Pier excavation (Figs. 1 and 3.24) covered an area of approximately 20m by 8m and was archaeologically monitored to a total depth of 4m, when the excavation levels were already deep into natural geology. To achieve the area extension requirements, several modern structures were removed before or during the excavation works, including: several handrails, a west to east orientated path or narrow road composed of tarmac overlaying a foundation layer of gravels, and a north to south orientated concrete staircase that led from the upper terrace of the embankment to the river level, overlaying a foundation layer of chalk (Fig. 3.25).

Topsoil **501** consisted of mid-greyish brown sandy silt, friable, with a heavily rooted grass cover and inclusions of modern refuse and construction waste (e.g., fragments, of bricks, concrete, metals). It had a depth between 0.1-0.15m and overlaid Made

Ground **502**, which consisted of dark grey-black sandy silt, friable, with frequent inclusions of coal and ashes and remains of construction waste. It overlaid natural geology **503** and several archaeological features identified during the excavation works of the North Pier and commented below. Natural geology **503** was a light brownish yellow clayey silt, friable to compact, with very frequent small (<50mm) to large (>500mm) natural limestone inclusions (Fig. 3.26).

Brick Wall **504** (Figs. 3.27-3.30) was north-east to south-west orientated and measured 3.95m in length, 0.12m in width, and had a maximum height of 0.75m, revealing up to 12 courses. The unfroged bricks conformed to imperial measurements, 9in (235mm) length by 4.5in (115mm) width by 2.5in (60mm) depth, and the bonding material was a pale grey concrete mortar. The wall was only one brick wide laid as stretchers and was slanted towards the south-east (external elevation) on a 70° angle, overlying natural geology **503**. The visible north-west elevation (internal) presented the remains of a pale greyish-yellow lime render. Wall **504** was lain along the south-east edge of Floor **505** and abutted by it and its foundation Layer **507**. Approximately 4m to the west, similar Wall **508** was revealed, parallel to **504** but slanting on the opposite direction.

Brick Floor **505** (Figs. 3.27-3.30) was north-east to south-west orientated and measured 4.1m in length, 1.95m in width, and 0.08m in height as it was only one course high with the bricks laid on bed and as stretchers. The unfroged bricks conformed to imperial measurements, 9in (235mm) length by 4.5in (115mm) width by 2.5in (60mm) depth, and the bonding material was a pale grey concrete mortar. The floor surface presented the remains of a pale greyish-yellow lime render. Floor **505** overlaid foundation Layer **507** and abutted side walls **504** and **506**.

Brick Wall **506** (Figs. 3.27-3.30) was north-east to south-west orientated and measured 4.1m in length, 1.95m in width, and had a maximum height of 0.16m. The unfroged bricks conformed to imperial measurements, 9in (235mm) length by 4.5in (115mm) width by 2.5in (60mm) depth, and the bonding material was a pale grey concrete mortar. Two courses were visible, the layout of the bricks differing from each other: the upper course showed a combination of bricks laid as stretchers on the south-east elevation and as headers on the north-west elevation, while the bottom course revealed three rows of bricks all laid as stretchers. Wall **506** was lain along the north-west edge of Floor **505** and abutted by it and its foundation Layer **507**.

Foundation Layer **507** (Fig. 3.30) was overlaid by brick Wall **506**, measuring 4.1m in length, 1.95m in width, and 0.2m in thickness. It was composed of light brownish yellow loose silty sand with frequent small inclusions of subangular limestones. Foundation Layer **507** overlaid Natural geology **503** and abutted side walls **504** and **506**.

Brick Wall **508** (Fig. 3.31) was revealed approximately 4m to the west of parallel similar Wall **504**. It was north-east to south-west orientated and measured 4.8m in length, 0.12m in width, and had a maximum height of 1.05m, revealing up to 14 courses. The unfroged bricks conformed to imperial measurements, 9in (235mm) length by 4.5in (115mm) width by 2.5in (60mm) depth, and the bonding material was a pale grey

concrete mortar. The wall was only one brick wide laid as stretchers and was slanted towards the north-west (external elevation) on a 70° angle. The visible south-east elevation (internal) presented the remains of a pale greyish-yellow lime render. Wall **508** seemed to belong to the same structure or have served to a common purpose with the rest of archaeological remains recorded in the North Pier area.

Site of North Abutment

The North Abutment (Figs. 1, 3.32 and 3.34) covered an area of approximately 20m by 20m, which was excavated in oblique angle to the north-west to south-east orientated edge of the cliff, to follow the north to south alignment of the bridge platform. Like Area 1, due to the steep topography, a nearly vertical slope, the area was excavated in decks to create a 'safe ground' for the layout of a geotextile terram membrane and stone, for the working platform. A total of five decks were excavated, measuring between 15-20m long, 1.5m wide and 0.6-1.1m high. The total depth from the top of the cliff to the bottom of the lower deck was approximately 6m, whereas the maximum soil depth between the top of the topsoil to the excavated deck levels was only 1.4m. None of the decks exposed natural geology.

To achieve the area extension requirements, several modern structures were removed during the excavation works, including a modern concrete service box and tarmac and concrete layers at the top of the cliff, to the south-west of Easington Street. The complexity of the groundworks in this area determined the limitations of the archaeological monitoring, that was carried out from the safe area habilitated at the top of the cliff to the north-western corner of the abutment area (near Easington Street), with limited access due to Health and Safety hazards caused by the mentioned topography of the area.

Topsoil **601** consisted of dark greyish brown sandy silt, loose, with a heavily rooted grass cover and inclusions of modern refuse, metal and building waste. It had a depth between 0.1-0.15m and overlaid Made Ground layers **602** and **603**. Made Ground **602** consisted of dark grey-black sandy silt, friable, with frequent inclusions of coal and ashes. It also contained a high volume of construction waste, metal and modern refuse. Its thickness varied from 0.4m at the top of the slope to 0.1m at the bottom and was only present on the north-eastern corner of the North Abutment area, overlaying Made Ground **603**. This consisted of mid-yellowish/orangey brown silty clay, friable, with occasional inclusions of construction waste (Fig. 3.35).

Brick Wall **604** (Fig. 3.33) was already exposed and visible before machine excavation. Located at the top of the cliff, it was likely part of the Grade 2 listed complex of the Former North Eastern Railway Stables, whose remaining building structures were located to the north-west of **604**. Here, the wall was acting as a retaining structure for the soil that supported the tarmac and concrete platform built on top of it, to the south-west of Easington Street. The last 6m on the eastern end of the wall were removed to achieve the North Abutment excavation requirements.

Wall **604** was east to west orientated and measured over 20m in length, 0.24m in width, and between 0.8m-1.1m in height. Ten courses were visible along the whole length of its south elevation, with a central section showing up to 14 courses. The unfrogged bricks conformed to imperial measurements, 9in (230mm) length by 4.5in (110mm) width by 3in (70mm) depth, laid as stretchers and headers in a combination of different bonding techniques that changed even in the same course. The wall width was only one brick length or two brick width, and the bonding material was a pale grey concrete mortar. Black stains from coal or burning episodes were present on the eastern section of the wall. Wall **604** abutted concrete Structure **605**, which seemed to act as foundations for the wall.

Concrete Structure **605** was between 0.4-0.6m in height, was exposed to a maximum length of 3.5m and to a maximum width of 0.3m. The full length and width remained unknown because the excavation requirements of the area were already met by the contractors. **605** had a mid-grey colour, a rock-hard compaction and was composed of small stones, gravel, and fragments of bricks. It was mainly visible under the eastern section of Wall **604**, and it likely continued towards the west underneath the visible brick wall, although it remained covered by the unexcavated topsoil.

Site of South Pier

The South Pier (Figs. 1 and 3.36-3.40) involved different phases of groundworks. An initial phase involved the drilling from the surface, several metres deep into the ground, of different sets of concrete pylons, related to the temporary works to be carried out in the pier area and to the foundations of the pier itself.

The second phase, where a working area of approximately 30m by 20m was excavated to the south of the retaining wall, to a depth of up to 1.2m. A west to east orientated path or narrow road across the centre of the area, composed of tarmac overlaying a foundation layer of gravels, was removed to carry on to the required excavation depth. Several north to south orientated 'block-paved' paths were also removed, overlaying the same kind of foundation layer of gravels. All these modern features overlaid Topsoil **401** and Made Ground **402**.

Two horizontal concrete beams (measuring approximately 15m long by 1.15m wide by 0.85m high) were built in this area by the contractors as part of the temporary works to be carried out in the South Pier. Several structural remains were revealed and photographed during this phase, including: an east to west orientated concrete wall across the whole length of the area; an east to west orientated brick wall overlying limestone foundations; two east to west orientated brick walls with up to four courses visible; and a further east to west brick wall revealing two courses over irregularly shaped limestone foundations, which overlay a layer of burnt coal and ashes. This last one overlaid a layer of industrial slag which, at the same time, overlaid a made ground layer. This second phase of works also involved the beginning of the excavation (up to 3m deep) of the south pier pit, an area of approximately 16m long by 8m deep immediately south of the retaining wall, which would conclude during the last phase of works.

The last phase of works completed the excavation of the South Pier pit to the required depth, approximately 7m from the surface, in addition to the excavation of the access ramps created on the north-eastern and north-western corners of the South Pier, to facilitate the entrance and exit of machinery, construction equipment and groundworkers, and to comply with Health and Safety standards reducing the risk of collapse. Most of the archaeological remains commented below were recorded on those access ramps on each side of the pier pit area. However, the complexity of the groundworks carried out in this area determined the limitations of the archaeological monitoring, which was carried out from the safe areas at the top, on the north-eastern and north-western corners of the South Pier, with limited and supervised access due to Health and Safety hazards.

Some of the initially considered archaeological remains in the South Pier pit area have been void in the post-excavation phase. This affects void contexts 411, 412, 413 and 414, all of them related to the recording of wooden vertical beams leant against the southern elevation of the retaining wall. Initially recorded as possible structures related to the original 'staithes' or coal drops documented in industrial times in the development area, they were lately assumed to be the remains of wooden sleepers from former railway tracks located in the area which were reused in the construction of the wooden frame or structure build in the 60s to reinforce the retaining wall (Figs. 3.59-3.60). Those concrete reinforcements are visible nowadays, and so are the imprints created in it by the reused wooden sleepers.

Topsoil **401** consisted of mid-greyish brown sandy and clayey silt, friable, with a heavily rooted grass cover and inclusions of construction waste, metal and modern refuse, and a depth ranging between 0.1-0.45m. It overlaid Made Ground **402**, which consisted of dark grey-black sandy silt, friable, with frequent inclusions of coal and ashes. It also contained frequent remains of construction waste, ceramic drains, metal and modern refuse. Iron railroad nails and fragmented wooden sleepers from railway tracks, modern glass and pottery, and porcelain were also identified. Additionally, bricks belonging to several different production companies were documented, including bricks with the inscriptions 'Lambton', 'Lambton Fence House' and 'Lambton NCB' (National Coal Board) visible in the frog, or unfrogged bricks with the inscription 'WC' (Wearmouth Colliery?) on its bed. Made Ground **402** sloped steeply to the north, this is towards the retaining wall, with a varying depth from 0.9m in the south up to 5.5m against the wall in the north. **402** overlaid Made Ground **403** and most of the archaeological features recorded in the South Pier and commented below (Figs. 3.40-3.42).

Made Ground **403** consisted of light yellow sandy and clayey silt, friable, with very frequent small (0.05-0.1m) to large (0.5m) limestone inclusions. Its colour, compaction and composition suggested a possible intentional redeposit of natural geology material, containing lenses (up to 0.20m) of coal and ashes, similar to Made Ground **402**, in which modern pottery and porcelain was identified. Made Ground **403** sloped steeply to the north, towards the retaining wall, and was exposed to depths approximately between 2.5m and 5m. It overlaid Walls **415** and **416** in the north-eastern corner of the south pier pit area. Natural geology was not exposed.

Structures **404**, **405**, **406**, **407**, **408** and **409** were all identified in the north-eastern corner access ramp (Figs. 3.43-3.44), in close relationship to each other and overlain by Made Ground **402**.

Brick Wall **404** (Figs. 3.45-3.47) was north to south orientated and visible to a length of 0.5m by 0.46m in width by 1.25m in height, where up to 13 courses were identified. The top course was laid on a descending angle towards the north, likely related to roofing purposes. Most of the bricks were unfrogged, although some examples of frogged bricks were documented, and they conformed to imperial measurements, 9in (235mm) length by 4.5in (115mm) width by 3in (80mm). All bricks were laid on bed and as a combination of stretchers and headers, showing different bonding techniques depending on the course. The bonding material was a pale yellow-grey lime mortar. Wall **404** abutted Wall **405**. It continued to the north up to the retaining wall, where the reinforcement works carried out in the 60s seemed to have respected the earlier **404** structure.

Wall **405** (Figs. 3.47-3.48) was north to south orientated and measured 2.3m in length, 0.48m in width, and was exposed to a maximum height of 0.25m, where only one course could be identified. Composed of squared limestone blocks, sizes varying from 0.3m long by 0.15m wide by 0.15m deep to 0.65m long by 0.3m wide by 0.25m deep and laid lengthways. Smaller and irregularly shaped limestones were visible between the larger blocks filling the gaps in between the courses, bonded by a pale yellow-grey lime mortar. Wall **405** seemed to form a corner return with east to west orientated Wall **406**. It was also abutted by brick Wall **404**, the first one likely acting as foundations for the second one.

Wall **406** (Figs. 3.47-3.49) was east to west orientated and was exposed up to 0.7m in length, 0.5m in width, and 0.82m in height. Four courses could be identified in the structure profile. Composed of squared limestone blocks, sizes 0.5m long by 0.2m wide by 0.1-0.15m deep and laid lengthways. Smaller and irregularly shaped limestones were visible between the larger blocks filling the gaps in between the courses, bonded by a pale yellow-grey lime mortar. Wall **406** seemed the return corner of the north to south orientated Wall **405**. Three bricks located 'in situ' on top of the limestone blocks suggested the possibility of **406** acting as foundations for a now disappeared brick wall, in the same way that Wall **405** appeared abutted by Wall **404**. Wall **406** was abutted by Wall **407**.

Brick Wall **407** (Fig. 3.50) was north to south orientated and measured 2.1m in length by 0.24m in width and was exposed to a maximum height of 0.43m on its west elevation, where up to five courses were identified. Most of the bricks were unfrogged, although some examples of frogged bricks were documented, and they conformed to imperial measurements, 9in (235mm) length by 4.5in (115mm) width by 3in (80mm). All bricks were laid on bed and as stretchers, although a single brick found 'in situ' towards the northern end of the top course suggested a possible change in the bonding technique of the now disappeared upper courses, being the only one laid as

a header. The bonding material was a pale yellow-grey lime mortar. Wall **407** abutted Wall **406** and was abutted by concrete Structure **408**.

Concrete Structure **408** (Fig. 3.51) was east to west orientated and measured 2.3m in length by 0.45m in width by 0.15m in height. It had a light yellow-grey colour, a rock-hard compaction and was composed of limestones, sand, stones, and gravels. Abutting Walls **406** and **407**, seemed a later addition lain on top of these structures to act as possible foundations for later Wall **409**, as **408** appeared abutted by it.

Brick Wall **409** (Fig. 3.51) was east to west orientated and measured 0.82m in length by 0.45m by 0.22m in height. All the bricks were frogged and had a pale orange colour, and a more modern appearance than the ones from the structures commented above (**404** and **407**). They measured 225mm long by 110mm wide by 75mm deep. Only two courses of the wall survived, showing a difference in the layout of the bricks: in the bottom course they were laid on edge whereas in the top course they were laid on bed. There was also a combination of headers and stretchers even in the same course. The wall width was only one brick length or two brick width, and the bonding material was a pale yellow-grey lime mortar, more homogeneous and less gritty than the ones found in the previous structures, and likely more modern.

Wall **410** (Figs. 3.51-3.54) appeared in the north-western corner access ramp, nearly attached to the east to west orientated retaining wall but without visible physical relationship between them, and overlain by Made Ground **402**. It was a north to south orientated structure which measured 1.6m in length, 1m in width, and was exposed to a maximum height of 0.40m on the west elevation and 1.2m on the east elevation, where up to four courses were identified. Composed of squared limestone blocks, sizes varying between 0.45-0.65m long by 0.25-0.35m wide by 0.2-0.35m deep. Smaller and irregularly shaped limestones were visible between the larger blocks filling the gaps in between the courses, bonded by a pale yellow-grey lime mortar.

Walls **415** and **416** (Figs. 3.55-3.58) comprised the south-western corner of a building structure, identified at the bottom level of the north-eastern corner of the South Pier pit. It was overlain by Made Ground **403** at a depth of approximately 6-7m from the ground level, and they both seemed to carry on towards north and east.

Wall **415** revealed a west facing elevation, exposed to a visible length of 1.2m and a height of 0.6m, and a south facing elevation, exposed to a visible length of 0.95m and a height of 0.6m. Three courses were recorded on the west elevation, although two extra courses on top of these three were identified in the south elevation. The wall was composed of perfectly squared limestone blocks, sizes up to 0.55m long by 0.25m wide by 0.25m deep, and smaller but also perfectly shaped limestones visible between the larger blocks filling the gaps in between the courses. The bonding material was a pale yellow-grey lime mortar with small gritty inclusions. Wall **415** was abutted by Wall **416**, the first one acting as foundations for the second one.

Brick Wall **416** revealed a very damaged west facing elevation, exposed to a visible length of 1.2m and 0.6m in height, where up to eight courses could be identified; and

a better preserved south facing elevation, exposed to a visible length of 0.65m and 1m in height, where up to eleven courses were recorded. The unfrosted bricks measured 8.25in (210mm) in length by 4in (105mm) in width by 2.5in (65mm) in depth. All bricks were laid on bed in an irregular combination of stretchers and headers. The bonding material was a pale yellow-grey lime mortar with gritty inclusions.

4. DISCUSSION

The archaeological remains encountered during the excavation works relate to the late post-medieval and modern eras, in particular from the early nineteenth century onwards, corresponding with the industrial development of the north and south banks of the River Wear. The groundworks carried out in the different development areas varied from very shallow excavation depths below ground level (0.25m in Area 3), where no archaeological remains were uncovered, to very deep excavation levels (up to 7m in the South Pier) where several structures from industrial and modern times were exposed.

The south bank was the area that brought to light most of the archaeological remains, largely covered by a black made ground layer of silt and coal (**202, 302, 402**), likely part of an intentional backfilling to build up ground level of the terrace on the south embankment to create the recreation area that has been there since the late 60s-early 70s, when the last remains of the industrial time were finally dismantled. Those late remains are visible on historic photos of the area held by the Beamish Collection (Beamish Museum 2023)¹. A particular photo (Fig. 3.61)² of this collection and dated to 1968 illustrates the existence in what now is Area 2 of standing brickwork buildings and parallel retaining side walls for a former railway track, which could possibly correspond to the east to west orientated rendered limestone Walls **204** and **206** and parallel brick Walls **207** and **208** immediately to the north. The structures might be related to the last activities performed by the Lambton Waggonway and the Lambton Drops on the south embankment of the river. This could be corroborated by the vast number of finds, documented but not retained, recovered from the above mentioned dark made ground layer of silt and coal that overlaid these structures, which included iron railroad nails, fragmented wooden sleepers, and bricks with the inscriptions 'Lambton', 'Lambton Fence House' and 'Lambton NCB' (National Coal Board).

A likely similar purpose had the wall structures uncovered in the north-eastern access ramp of the South Pier (**404, 405, 406, 407, 408** and **409**), although there was no possible identification of any of these structures in the historical maps and photography. The remains exposed at lower depths on the north-western access ramp of the South Pier (Wall **410**) and in particular on the north-eastern corner of the South Pier pit area (Walls **415** and **416**) suggest earlier industrial activity, perhaps relating these substantial structures to the stone foundations of the coal drops, already active in the early 19th century.

¹ <https://www.flickr.com/photos/beamishmuseum/page45>

² <https://www.flickr.com/photos/beamishmuseum/4894167819/>

The thickening of the dark silt and coal Made Ground layer (**402**) towards the retaining wall on the northern edge of the South Pier, from approximately 0.8-1.2m to over 5m, could be the result of the reinforcement works carried out in the 60s. The remains of wooden sleepers, possibly belonging to former railway tracks in the area and reused in the construction of the wooden frame or structure built to reinforce the retaining wall in the south embankment, were located several meters down from the ground level and still lain against the concrete.

The north embankment of the river produced further archaeological remains of industrial times. The different made grounds recorded in the terrace of the north embankment, corresponding to development Area 1, might be related to different phases of ground levelling and remediation works carried out in the area following dismantling in the 20th century of former industrial complexes that were visible in the historic OS Maps and historic photos.

The North Pier development area uncovered a north-east to south-west orientated brickwork structure (including Walls **504**, **506** and **508**, Floor **505** and foundation Layer **507**) of unknown purpose, running towards the river in a nearly perpendicular angle, but approximately 4-5m over the present-day water level. There was no possible identification of these structural remains in the historical maps and photography. Brick Wall **604**, identified at the top of the cliff in the North Abutment development area, likely relates to the Grade 2 listed complex of the Former North Eastern Railway Stables (Historic England 2023), whose remaining building structures are located to the north-west, outside the development area for the New Wear Footbridge but also under current development.

5. CONCLUSION

The aim of the watching brief was to identify and record any archaeological remains which may have been located within the proposed development areas, in particular any which would have contributed towards the selected research objectives from the North-East Regional Research Framework for the Historic Environment (NERRF). Unfortunately, no archaeological remains belonging to the Mesolithic, Neolithic, Bronze Age, and Iron Age periods were identified, and therefore no contributions can be made to the research agendas of the NERRF related to the prehistorical knowledge of the area.

The archaeological remains relate to the late post-medieval and modern eras. The majority of the features observed correspond to limestone and brickwork wall structures and foundations, evidence of the industrial development of the north and south banks of the River Wear from the early 19th to mid-20th century. This is particularly visible on the south bank, where the archaeological evidence helps consolidate even further the well-known industrial development of the Lambton Waggonway and the Lambton Drops or 'staithe' in this area.

In the second half of the 20th century, the dismantling of the former industrial complexes, followed by the rehabilitation works as recreational areas on both the north

and south banks of the river, likely truncated the site heavily, and any other archaeological evidence pre-dating this has likely been removed.

9. BIBLIOGRAPHY

Archaeological Services, 2017, *The Launch, Former Vaux Brewery, Sunderland, Tyne and Wear: archaeological mitigation works*, Archaeological Services Durham University, report 4562.

Archaeological Services, 2019, *Former Vaux Brewery site, Sunderland, Tyne and Wear: post-excavation full analysis*. Archaeological Services Durham University, report 5026.

Archaeological Services, 2020, *Expanded Former Vaux Site, Sunderland, Tyne and Wear: archaeological desk-based assessment*. Archaeological Services Durham University, report 5424.

Chartered Institute for Archaeologists (CIfA), 2019, *Code of Conduct*, available at: <https://www.archaeologists.net/codes/cifa>

Chartered Institute for Archaeologists (CIfA), 2020a, *Standard and Guidance for archaeological watching briefs*. Available at: <https://www.archaeologists.net/codes/cifa>

Chartered Institute for Archaeologists (CIfA), 2020b, *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives*, available at: <https://www.archaeologists.net/codes/cifa>

Glover, G, & Allen, E, 2004, *An archaeological evaluation at the former Vaux Brewery, St. Mary's Way, Sunderland, Tyne & Wear*. Pre-Construct Archaeology Ltd.

Historic England, 2015a, *Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide*, Available at: <https://historicengland.org.uk/images-books/publications/morphe-project-managers-guide/>

Laidler, S., 2022a, *Specification for Archaeological Monitoring at the River Wear Bridge, landing points, Sunderland*. Tyne and Wear Archaeology Service.

Laidler, S., 2022b, *Specification for Archaeological Trial Trenching at the north and south bridge piers, River Wear Sunderland*. Tyne and Wear Archaeology Service.

Laidler, S., 2022c, *Specification for Archaeological Monitoring of Ground Investigation test pits associated with the construction of the new High Level Wear footbridge, Sunderland*. Tyne and Wear Archaeology Service.

NAA, 2017, *Sheepfolds, Sunderland Tyne and Wear: archaeological desk-based assessment, building recording and geological assessment*. NAA report 17/059.

Swann, N., 2020, *New Wear Footbridge, Archaeological Watching Brief Written Scheme of Investigation 20364*. Archaeological Services, Durham University.

Volker Stevin, 2023, *Scope of Work – Project Archaeologist, C14715 – High level Wear Footbridge*.

Online Sources

Beamish Museum, 2023, *Beamish Collections*, historic photos available at: <https://www.flickr.com/photos/beamishmuseum/page45>, accessed (05/12/2023)

British Geological Survey, 2023, *Geology of Britain Viewer*, available at: <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>, accessed (29/11/2023)

Historic England, 2023, *The List*, available at: <https://historicengland.org.uk/listing/the-list/>, accessed (05/12/2023)

National Library of Scotland, 2023, *Ordnance Survey Maps*, available at: <https://maps.nls.uk/os/>, accessed (05/12/2023)

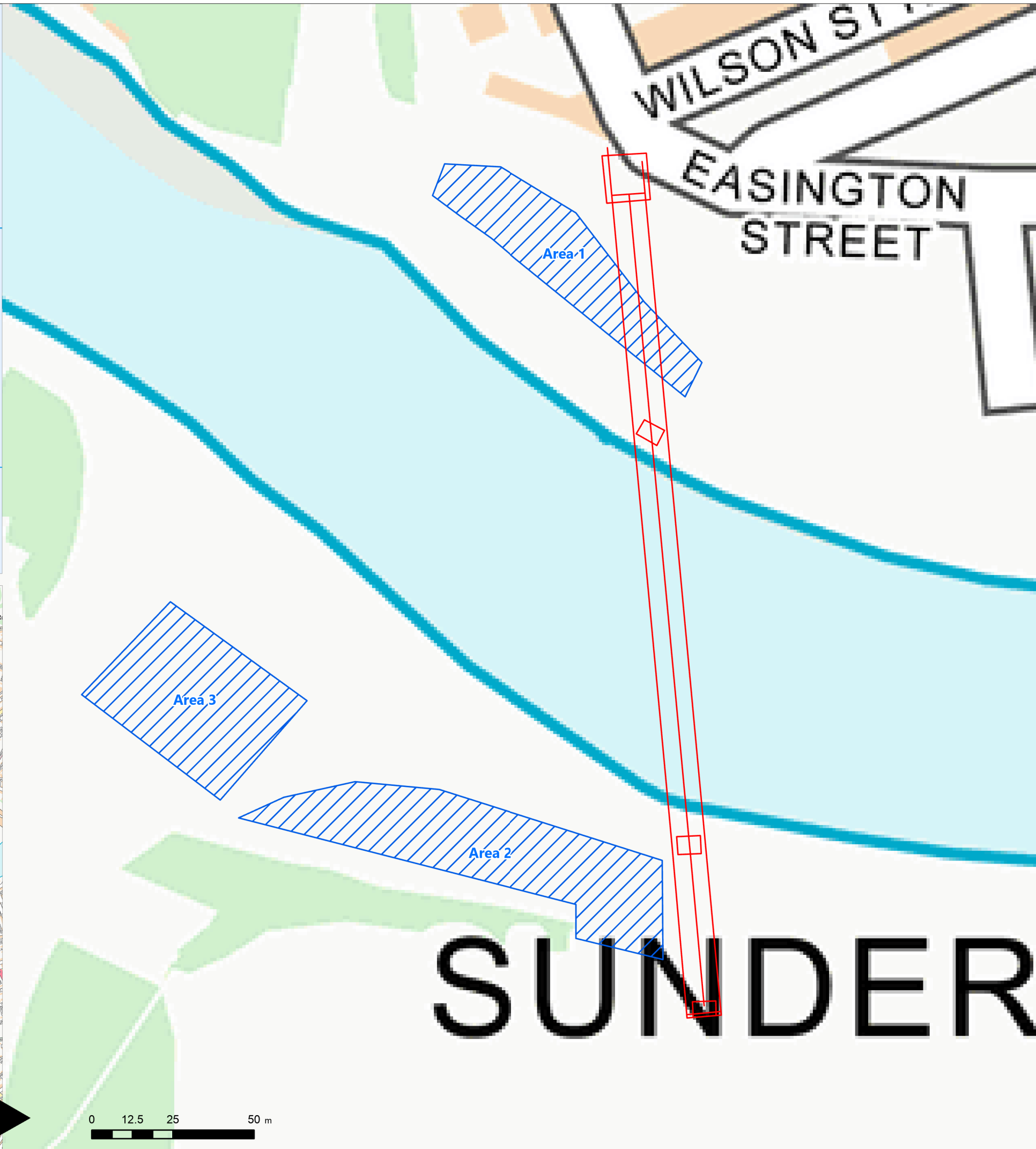
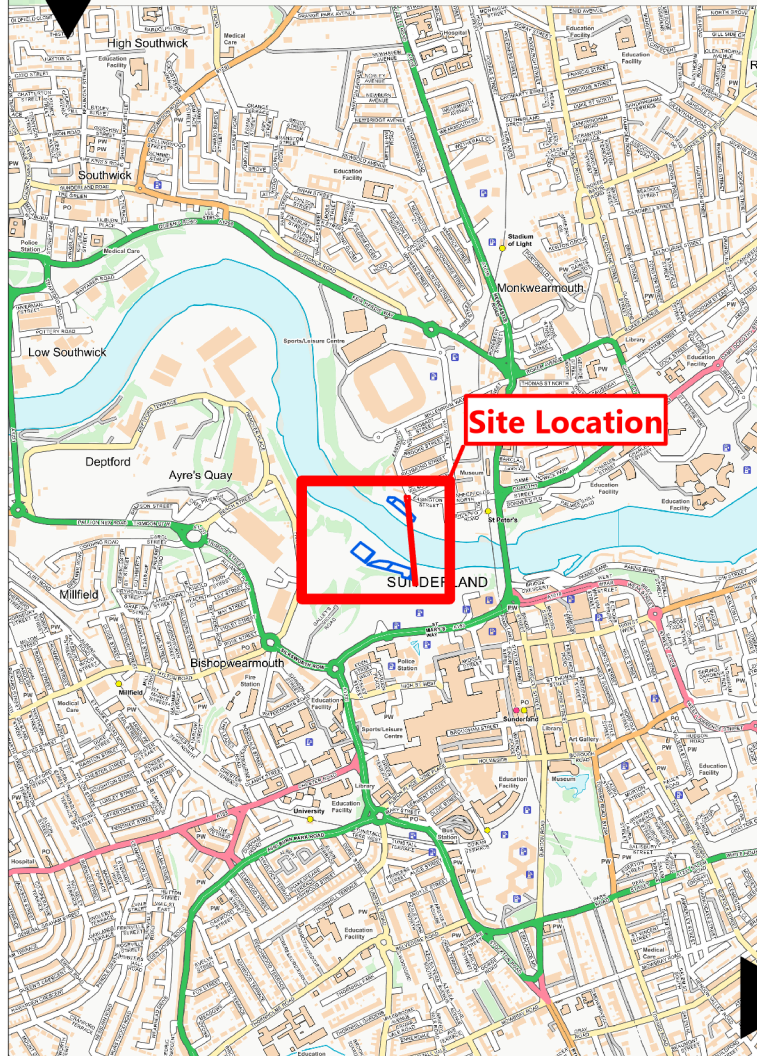
Newcastle Libraries, 2023, historic photos available at: <https://www.flickr.com/photos/39821974@N06/>, accessed (05/12/2023)

North-East Regional Research Framework for the Historic Environment, 2006 (revised 2018/2019), available at: <https://researchframeworks.org/nerf/>, accessed (29/11/2023)

Sunderland Public Libraries, 2023, historic photos available at: <https://www.flickr.com/photos/sunderlandpubliclibraries/>, accessed (05/12/2023)

Tyne and Wear Archives and Museums, 2023, historic photos available at: <https://www.flickr.com/photos/29295370@N07/>, accessed (05/12/2023)

Figures



Key:

- Watching Brief Areas
- Bridge Layout

Image adapted © Sunderland City Council
 Reproduced with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office, © Crown copyright. CFA Archaeology Ltd, Old Engine House, Eskmills Park, Musselburgh EH21 7PQ AL100034785



Title:
Site Location

Project:
**New Wear Footbridge,
 Sunderland**

Client:
Volker Stevin

Scale at A3:
1:1,250

Drawn by: SG	Checked: SW	Date: 12/03/2024
-----------------	----------------	---------------------

Report No: 4414	Fig. No: 1
--------------------	---------------



Key:



Image adapted © MGL Group

Reproduced with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office, © Crown copyright. CFA Archaeology Ltd, Old Engine House, Eskmills Park, Musselburgh EH21 7PQ AL100034785



Title:
Area 1 Trial Pit Locations

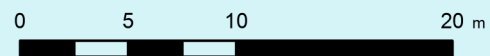
Project:
New Wear Footbridge,
Sunderland

Client:
Volker Stevin

Scale at A3:
1:350

Drawn by: SG	Checked: SW	Date: 12/03/2024
-----------------	----------------	---------------------

Report No: 4414	Fig. No: 2.1
--------------------	-----------------





Key:



Image adapted © MGL Group

Reproduced with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office, © Crown copyright. CFA Archaeology Ltd, Old Engine House, Eskmills Park, Musselburgh EH21 7PQ AL100034785



Title:
Areas 2 & 3 Trial Pit locations

Project:
New Wear Footbridge,
Sunderland

Client:
Volker Stevin

Scale at A3:
1:400

Drawn by: SG	Checked: SW	Date: 12/03/2024
-----------------	----------------	---------------------

Report No: 4414	Fig. No: 2.2
--------------------	-----------------

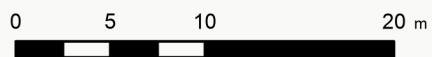




Fig. 3.1: Area 1 before excavation, facing west



Fig. 3.2: Trial pit 3 in Area 1



Client:
Volker Stevin

Project:
New Wear Footbridge, Sunderland

Drawn by:
SG

Checked:
SW

Date:
12/03/2024

Report No:
4414



Fig. 3.3: Excavation to required depth in Area 1, facing south-west



Fig. 3.4: Excavation to required depth in Area 1, facing south-east



Client:
Volker Stevin

Project:
New Wear Footbridge, Sunderland

Drawn by:
SG

Date:
12/03/2024

Checked:
SW

Report No:
4414



Fig. 3.5: Excavation to required depth in Area 1, facing south-east



Fig. 3.6: West facing representative section in Area 1, showing Made Grounds 102, 103 and 104



Client:
Volker Stevin

Project:
New Wear Footbridge, Sunderland

Drawn by:
SG

Checked:
SW

Date:
12/03/2024

Report No:
4414



Fig. 3.7: Area 2 before excavation, facing south-east



Fig. 3.8: Trial pit 2 in Area 2



Client:
Volker Stevin

Project:
New Wear Footbridge, Sunderland

Drawn by:
SG

Checked:
SW

Date:
12/03/2024

Report No:
4414



Fig. 3.9: Central trial trench in heavy lifting platform, Area 2



Fig. 3.10: Hand-excavated test slot on south elevation of Wall 204 after initial exposure



Client:
Volker Stevin

Project:
New Wear Footbridge, Sunderland

Drawn by:
SG

Date:
12/03/2024

Checked:
SW

Report No:
4414



Fig. 3.11: Excavation to required depth in eastern general working platform, Area 2, facing south-east



Fig. 3.12: Excavation to required depth in western general working platform, Area 2, facing north-east



Client:
Volker Stevin

Project:
New Wear Footbridge, Sunderland

Drawn by:
SG

Checked:
SW

Date:
12/03/2024

Report No:
4414



Fig. 3.13: South elevation of Wall 204



Fig. 3.14: Parallel Walls 204 and 206, facing east



Client:
Volker Stevin

Project:
New Wear Footbridge, Sunderland

Drawn by:
SG

Date:
12/03/2024

Checked:
SW

Report No:
4414



Fig. 3.15: Parallel Walls 204 and 206, facing west



Fig. 3.16: Parallel Walls 207 and 208, facing west



Client:
Volker Stevin

Project:
New Wear Footbridge, Sunderland

Drawn by:
SG

Date:
12/03/2024

Checked:
SW

Report No:
4414



Fig. 3.17: Parallel Walls 207 and 208, facing east



Fig. 3.18: Plan of Wall 208 showing bricks with 'Lambton' inscription



Client:
Volker Stevin

Project:
New Wear Footbridge, Sunderland

Drawn by:
SG

Date:
12/03/2024

Checked:
SW

Report No:
4414



Fig. 3.19: Parallel Walls 207 and 208 in western general working platform, Area 2, facing east



Fig. 3.20: South elevation of Wall 208



Client:
Volker Stevin

Project:
New Wear Footbridge, Sunderland

Drawn by:
SG

Checked:
SW

Date:
12/03/2024

Report No:
4414



Fig. 3.21: South elevation of Wall 207



Fig. 3.22: Wall 209, facing south



Client:
Volker Stevin

Project:
New Wear Footbridge, Sunderland

Drawn by:
SG

Date:
12/03/2024

Checked:
SW

Report No:
4414



Fig. 3.23: Excavation to required depth in Area 3, facing west



Fig. 3.24: Excavation to required depth in North Pier, facing south-east



Client:
Volker Stevin

Project:
New Wear Footbridge, Sunderland

Drawn by:
SG

Date:
12/03/2024

Checked:
SW

Report No:
4414



Fig. 3.25: East facing representative section in North Pier, showing Made Ground 502 and modern staircase with foundation layer of chalk



Fig. 3.26: West facing representative section in North Pier



Client:
Volker Stevin

Project:
New Wear Footbridge, Sunderland

Drawn by:
SG

Checked:
SW

Date:
12/03/2024

Report No:
4414



Fig. 3.27: North-east to south-west orientated brickwork structure in North Pier, including Walls 504 and 506, and Floor 505. Facing south-east



Fig. 3.28: North-east to south-west orientated brickwork structure in North Pier, including Walls 504 and 506, and Floor 505. Facing north-west



Client:
Volker Stevin

Project:
New Wear Footbridge, Sunderland

Drawn by:
SG

Checked:
SW

Date:
12/03/2024

Report No:
4414



Fig. 3.29: North-east to south-west orientated brickwork structure in North Pier, including Walls 504 and 506, and Floor 505. Facing south-west



Fig. 3.30: Foundation Layer 507 under Floor 505, facing north-west



Client:
Volker Stevin

Project:
New Wear Footbridge, Sunderland

Drawn by:
SG

Date:
12/03/2024

Checked:
SW

Report No:
4414



Fig. 3.31: North-east to south-west orientated Wall 508, facing north-west



Fig. 3.32: North Abutment before excavation, facing north-west



Client:
Volker Stevin

Project:
New Wear Footbridge, Sunderland

Drawn by:
SG

Checked:
SW

Date:
12/03/2024

Report No:
4414



Fig. 3.33: South elevation of Grade 2 listed Wall 604, facing north-west



Fig. 3.34: Excavation to required depth in North Abutment, facing north



Client:
Volker Stevin

Project:
New Wear Footbridge, Sunderland

Drawn by:
SG

Checked:
SW

Date:
12/03/2024

Report No:
4414



Fig. 3.35: South facing representative section in North Abutment, showing concrete Structure 605, and Made Grounds 602 and 603



Fig. 3.36: South Pier pit before excavation, facing north-west



Client:
Volker Stevin

Project:
New Wear Footbridge, Sunderland

Drawn by:
SG

Checked:
SW

Date:
12/03/2024

Report No:
4414



Fig. 3.37: South Pier pit excavation, approximately 2m down from ground level, facing north-west



Fig. 3.38: South Pier pit excavation, approximately 3.5m down from ground level, facing west



Client:
Volker Stevin

Project:
New Wear Footbridge, Sunderland

Drawn by:
SG

Checked:
SW

Date:
12/03/2024

Report No:
4414



Fig. 3.39: South Pier pit excavation, approximately 5m down from ground level, facing west



Fig. 3.40: Excavation to required depth in South Pier pit, facing south-east



Client:
Volker Stevin

Project:
New Wear Footbridge, Sunderland

Drawn by:
SG

Checked:
SW

Date:
12/03/2024

Report No:
4414



Fig. 3.41: West facing representative section in South Pier pit showing Made Grounds 402 and 403, approximately 5.5m below ground level



Fig. 3.42: North facing representative section in South Pier pit, showing Made Grounds 402 and 403, approximately 5.5m below ground level



Client:
Volker Stevin

Project:
New Wear Footbridge, Sunderland

Drawn by:
SG

Checked:
SW

Date:
12/03/2024

Report No:
4414



Fig. 3.43: Structures 404, 405, 406, 407, 408 and 409, facing north-east



Fig. 3.44: Structures 404, 405, 406, 407, 408 and 409, facing north



Client:
Volker Stevin

Project:
New Wear Footbridge, Sunderland

Drawn by:
SG

Date:
12/03/2024

Checked:
SW

Report No:
4414



Fig. 3.45: West elevation of Wall 404



Fig. 3.46: Profile of Wall 404



Client:
Volker Stevin

Project:
New Wear Footbridge, Sunderland

Drawn by:
SG

Date:
12/03/2024

Checked:
SW

Report No:
4414



Fig. 3.47: Walls 404, 405 and 406



Fig. 3.48: Plan of Wall 405 and 406



Client:
Volker Stevin

Project:
New Wear Footbridge, Sunderland

Drawn by:
SG

Date:
12/03/2024

Checked:
SW

Report No:
4414