# Northwich Town Centre Flood Risk Management Scheme Archaeological Monitoring of Ground Investigation Works

**Prepared by T. Linington** 

2014

**Project Code - NFS** 

**TPA Report No. 146/2014** 



Northwich Town Bridge looking south

Trent & Peak Archaeology © Unit 1, Holly Lane Chilwell Nottingham NG9 4AB 0115 8967400 (Tel.) 0115 925 9464 (Fax.)



#### **QUALITY ASSURANCE**

Prepared by  Date	Thomas Linington, Project Supervisor
Checked by	Gareth Davies, Project Manager
Signed	Paralles
Date	27/11/14
Approved by	Lee Elliott, Head of Projects
Signed	Les Emett, Freda et Frejeste
Date	Leitellidt
	27/11/14
Report Number	146/2014
Status	Version 1.2

#### DISCLAIMER

This Report has been prepared solely for the person/party which commissioned it and for the specifically titled project or named part thereof referred to in the Report. The Report should not be relied upon or used for any other project by the commissioning person/party without first obtaining independent verification as to its suitability for such other project, and obtaining the prior written approval of York Archaeological Trust for Excavation and Research Limited ("YAT") (trading as Trent & Peak Archaeology) YAT accepts no responsibility or liability for the consequences of this Report being relied upon or used for any purpose other than the purpose for which it was specifically commissioned. Nobody is entitled to rely upon this Report other than the person/party which commissioned it. YAT accepts no responsibility or liability for any use of or reliance upon this Report by anybody other than the commissioning person/party.

#### SUMMARY

- Trent & Peak Archaeology (TPA) were commissioned by Galliford Try/ Black & Veatch Joint Venture Ltd (GBV) (on behalf of the Environment Agency), to carry out archaeological monitoring and recording of ground investigation (GI) works comprising a number of hand dug inspection pits ahead of the Northwich Town Centre Flood Relief Management Scheme (FRMS) works.
- The work was carried out between the 10<sup>th</sup> and 25<sup>th</sup> November 2014 with archaeological monitoring by staff from TPA.
- The proposed Northwich FRMS will affect a number of locations throughout the town centre of Northwich. An environmental statement for the scheme indicate that there is a possibility of encountering stratified archaeological deposits of significance associated with the medieval, post-medieval and industrial periods of Northwich. These include post-medieval to modern made ground deposits (commonly 3-7m deep in Reaches 1-3) identified by Liverpool Museums service during earlier archaeological monitoring of boreholes. Archaeological monitoring of these additional ground investigations was therefore considered an effective way of identifying and helping to manage archaeological risk in advance of construction and the preparation of a formal approved mitigation (Watching Brief) WSI.
- A total of 12 hand dug trial holes were monitored archaeologically to a maximum depth of 1.35 m below ground level (BGL).
- Archaeological features were observed within two trials holes.
- Within TP101, a late 19<sup>th</sup>/early 20<sup>th</sup> century brick wall was observed. The trial hole was located off what is now Whalley Road. The wall possibly related to the terrace housing that existed here from the 1870s to at least the 1960s. These houses were probably built for the workers of the nearby Croft and Leftwich Salt Works.
- Within TP301, a 19<sup>th</sup> century unfrogged brick surface was observed, which was interpreted as a potential quayside surface relating to the nearby Baronsquay Salt Works. This surface sealed a thick deposit of industrial waste, probably of a similar date.
- The archaeological features encountered in TP101 and TP301 indicate that industrial-period structures are clearly built in to previously observed 'made-ground' deposits and may be encountered at depths of 0.2m BGL (Reach 1) and 0.5m BGL (Reach 3). This is consistent with recent observations made immediately north of Reach 1 at the Magistrates Court site (OAN 2013).
- Towards the eastern end of Reach 1, there was an indication that made ground deposits encountered elsewhere were much shallower or absent, increasing the possibility of subsequent works impacting upon the underlying alluvial layers and possible archaeological horizons.
- On the evidence these observations, it is possible that the proposed construction cut for both the flood wall construction along Reach 1 will expose further remains relating to the wall within Trial Pit 101. Whereas the shallow deposits at the eastern end of Reach 1 have shown that any topsoil and subsoil stripping relating to the construction of an embankment, will likely expose the alluvial clay silts of unknown archaeological potential. Within Reach 2 the limited results do not allow any informed conclusions to be drawn on the nature of the deposits beyond 0.9m BGL. Within Reach 3, the evidence for a brick surface within Trial Pit 301 has shown that 19<sup>th</sup> and 20<sup>th</sup> century structures may be encountered during the excavation of the proposed construction cut, for the flood wall.

## Report on the archaeological watching brief for the Northwich Flood Alleviation Scheme

#### Prepared by T. Linington

#### CONTENTS

QUALITY ASSURANCE	1
DISCLAIMER	1
SUMMARY	
LIST OF FIGURES	
1. INTRODUCTION	
2. PROJECT BACKGROUND	
3. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND	
3.1 Site Topography and Geology	5
3.2 Historic Background	
4. METHODOLOGY	
5. RESULTS	
5.1 Introduction	
5.2 Trial Pits	
6. CONCLUSION AND RECOMMENDATIONS	
7. BIBLIOGRAPHY	
Appendix 1 - Context Register	
Appendix 2 - Index of Archive and Arrangements for Deposition	
Appendix 3 - Plates	
Appendix 4 - Figures	
rr r · · · · · · · · · · · · · · · · ·	

#### LIST OF FIGURES

- Fig. 1 Site Location
- Fig. 2-4 Location of Interventions
- Fig. 5 1877 OS map showing approximate location of TP101
- Fig. 6 1910 OS map showing approximate location of TP101
- Fig. 7 1880 OS map showing approximate location of TP301
- Fig. 8 1910 OS map showing approximate location of TP301
- Plate 1: Trial Hole 101
- Plate 2: Trial Hole 102
- Plate 3: Trial Hole 103
- Plate 4: Trial Hole 104
- Plate 5: Trial Hole 201
- Plate 6: Trial Hole 202
- Plate 7: Trial Hole 203
- Plate 8: Trial Hole 204
- Plate 9: Trial Hole 301, showing brick surface (3015)
- Plate 10: Trial Hole 301, fully excavated
- Plate 11: Trial Hole 302
- Plate 12: Trial Hole 303
- Plate 13: Trial Hole 304

#### 1. INTRODUCTION

- 1.1 Trent & Peak Archaeology were commissioned by Galliford Try/ Black & Veatch Joint Venture Ltd (GBV), acting on behalf of the Environment Agency, to carry out a watching brief, consisting of archaeological monitoring and recording of ground investigation (GI) works (comprising a number of hand dug inspection pits and window samples) ahead of the Northwich Town Centre Flood Relief Management Scheme works.
- 1.2 The development, hereafter 'the Site', comprises a number of locations situated throughout the town of Northwich.
- 1.3 The archaeological monitoring was conducted as part of initial evaluation works in order to assess the potential survival of archaeological deposits along the route of the proposed development.

#### 2. PROJECT BACKGROUND

- 2.1 Galliford Try/ Black & Veatch Joint Venture Ltd (GBV), are intending to undertake an extensive scheme of flood defence construction within the town centre of Northwich, Cheshire (the Northwich Town Centre Flood Relief Management Scheme). The scheme covers a wide area of Northwich, extending from Whalley Road, following the course of the River Dane to the north-west until its confluence with the River Weaver. The flood defence works continue to the immediate north and south along the Weaver Navigation with additional works planned on the sluice gates to the east of Hunt's Lock on the River Weaver.
- 2.2 The potential for archaeological remains on the site has been identified during early consultation between Black and Veatch, and the archaeological advisors at Cheshire West and Chester Council (CWaC) and the Environment Agency. An environmental statement for the scheme indicated that there is a possibility of encountering stratified archaeological deposits of significance associated with the medieval, post-medieval and industrial periods of Northwich. These include post-medieval to modern made ground deposits (commonly 3-7m deep in Reaches 1-3) identified by Liverpool Museums service during earlier archaeological monitoring of boreholes.
- 2.3 This early stage work has allowed for an assessment of any areas of archaeological interest to me made, in advance of additional ground investigations, and, as a result, archaeological monitoring of these additional ground investigations was therefore considered an effective way of identifying and helping to manage archaeological risk in advance of construction and the preparation of a formal approved mitigation (Watching Brief) WSI.

#### 3. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

#### 3.1 Site Topography and Geology

- 3.1.1 The development area (DA) can be approximately centred on the OS grid reference of SJ 65922 73577. The Northwich Town centre FRMS represents the construction of a number of raised flood defences in the vicinity of the River Dane and River Weaver in Northwich.
- 3.1.2 The underlying geology of the majority of the DA is defined as Northwich Halite Member; a halite-stone and mudstone sedimentary bedrock, formed approximately 237 to 246 million years ago in the Triassic Period. This represents a local environment previously dominated by hot deserts. Superficial alluvial deposits of clay, silt, sand and gravel were formed up to 2 million years ago in the Quaternary Period in a riverine environment. To the immediate west, superficial glacial deposits of Till (Devensian) and Diamicton, also dating to the Quaternary Period were formed in a local environment previously dominated by ice age conditions outwash sand and gravel deposits from seasonal and post glacial meltwaters. (http://mapapps.bgs.ac.uk/geologyofbritain/home.html).
- 3.1.3 The overlying superficial soils comprise, to the south-east, of free draining floodplain soils, which are loamy in texture. To the north are free draining floodplain soils with naturally high groundwater and to the west, slowly permeable, seasonally wet, slightly acid but base-rich loamy and clayey soils (www.landis.org.uk/soilscapes).
- 3.1.4 Topographically the DA is largely flat, lying consistently at 12m AOD. This falls in the far north-west corner to 11m along the River Weaver Navigation, north of the Town Bridge.

#### 3.2 Historic Background

This background is a short précis of more detailed work contained with the Northwich FRMS DBA (Humphreys 2014). Readers are referred to this for specific CHER reference numbers.

#### 3.2.1 Prehistoric

Prehistoric evidence is scant both within the study area and is restricted to limited lithic findsposts (Humphreys 2014, 53). These finds perhaps indicate a transient presence from the later prehistoric periods, however no settlement or burial archaeology have been identified. The longevity of salt production in the Northwich area could feasibly date to the Iron Age, however no evidence has been forthcoming with the earliest connected artefacts identified as Roman.

#### 3.2.2 Roman

The known Roman settlement of *Condate* and its recorded timber fort led to a number of excavations, carried out from 1960-80. These revealed a two phase occupation site, accessed from Chester Road, consisting of timber barracks and a defensive ditch. The site appears to have been abandoned during Agricola's push north towards Scotland c. 80AD only to be reoccupied c.120AD during Hadrian's establishment of northern rule (Curzon, 1993).

Across the town, further evidence of domestic and settlement activity are present in the form of kilns and salt pans. Find spots of ceramics, coins and livery as well as cremation urns have been recovered across the wider study area (Humphreys 2014, 53-54).

#### 3.2.3 Medieval (410-1485 AD)

The visibility for Medieval activity across the period is extremely low. The town is mentioned in Domesday, however HER records relating to the period are largely limited to documentary records, rather than find spots or extant remains. The Grade I listed Church of St Helen,

which contains 14<sup>th</sup> century features, is the only known medieval standing asset within the study area. It is likely that any Medieval settlement lies beneath the later Post-Medieval and modern town centre, to the north of the river confluence, around the Market Street area.

#### 3.2.4 Post Medieval and Modern

Despite documentary evidence for a thriving Post-Medieval town, specialising in salt production, archaeological visibility remains low until the 17<sup>th</sup> century, with the earliest of the 128 locally listed buildings dating to this time.

The town of Northwich experienced considerable growth across the late 19<sup>th</sup> and 20<sup>th</sup> century with the great majority of statutory designations dating to this time (Humphreys 2014, 55).

Of particular interest, to this present report is the Croft Salt Works, located on the north bank of the River Dane, less than half a mile to the east of the confluence of the rivers Weaver and Dane. Established by the 1770s, by the Marshall Family, the Croft Salt works operated right up to the end of the 19<sup>th</sup> century, though the exact date of the dissolution remained unclear. Works by Oxford Archaeology North (Mottershead 2013) immediately north of Reach 1 in 2013, identified that while the remains of the salt works were heavily truncated in some places, there was still a good chance of some structural material surviving intact.

#### 4. METHODOLOGY

4.1 The development area was divided into three main areas, called Reaches. Within each Reach, a series of trial pits were hand excavated in order to locate buried services and/or to establish the nature of existing structures. The specific methodology for each of these Reaches is described below.

#### 4.2 Reach 1

In total, 4 trial pits were excavated to establish the depth and locations of the buried gas main and buried sewer within Reach 1. The location, type and depth of any services were then recorded.

TP1A (TP101) required excavation in both the grass verge and footpath to expose the gas main and sewer. The location of TP1C (TP102) was determined based on the results of TP1A, with the aim of confirming whether the gas pipe left the grass verge.

TP1D (TP103) was positioned at the western end of Reach 1, with the objective of locating the buried gas main.

TP1E (TP104) was located upon the cycle path at the eastern end of Reach 1. This pit was excavated in two stages, as additional length was required to locate the gas main, but there was also a need to maintain access along the cycle path.

TP1B was not excavated, following consultation with the Environment Agency.

#### 4.3 Reach 2

Precast concrete wall panels lined the north (right) bank of the River Dane. Two trial pits (TP202 & TP203) were dug to fully expose the horizontal slab supporting the wall panels, together with the rear edge of the slab (where possible). The pits were excavated to a width of 0.8m and exposed the slab either side of the panel joints, together with the centre of one of the slab sections (where the locating pin was expected to be).

Two further trial pits were excavated to investigate the nature of the concrete foundations of the Watling Street Medical Practice car park (TP201), as well as a final trial pit (TP204) to investigate the foundations of the Colby Conduct building, just to the south of the Town Bridge over the River Weaver.

#### 4.4 Reach 3

Three trial pits were excavated in the carriageway immediately adjacent to the existing kerb alongside the quay. These pits exposed the foundation of the kerb and continued down to a minimum depth of 0.8m below the road level to search for buried foundations relating to either the quay wall or the kerb wall.

Trial pit TP301 was in the location of an existing reinstated trial pit. This pit previously exposed a buried structure, but little information on it was gathered. Pit TP301 was dug first, as findings were to dictate the approach to pits TP302 TP303.

A further trial pit investigated the nature of the foundations at the rear of the Cheshire Building Society building, on the east (right) bank of the River Weaver (TP304).

#### 4.5 The archaeological work:

The objective of the archaeological attendance can be stated as:

- To gather sufficient information to establish the presence/absence, extent, condition, depth, character, quality and date of any archaeological remains in order to establish the impact of the development on the archaeological resource.

This was achieved through the continuous archaeological monitoring of intrusive ground works, where there was potential to impact on features and layers of archaeological significance.

All recording resulted in 'the preparation of a report and ordered archive', in line with the guidelines of the IfA Institute for Archaeologists (*Standard and Guidance: for an archaeological watching brief* published October 1994, revised September 2001 and October 2008).

Within the confines of site safety, contexts (the smallest usefully-definable unit of stratification) were cleaned by hand and recorded.

Investigations were sufficient to securely establish the character and where possible date, and stratigraphic relationship of features.

For all monitored Trial Pits, a formal TPA log was filled out.

None of the deposits encountered were deemed suitable for environmental sampling, as there was a lack of potentially datable organic remains within the deposits observed.

#### 4.6 Post-excavation Processing

All finds were to be stored as recommended in "First aid for finds" (by the Archaeology section of the United Kingdom Institute for Conservation), and marked with the site and find codes, and relevant accession numbers. These will be deposited with the appropriate museum on completion of the report, subject to the provisions of the brief and the agreement of the client.

#### 4.7 Archive

The archive will be fully indexed and contain where relevant:

- copies of correspondence relating to fieldwork
- original photographic records
- site drawings (plans,sections,elevations)
- original context records, matrix diagrams showing stratigraphic sequence of all contexts.
- computer discs and printout

#### 4.8 Archive and Finds Deposition

Where necessary the documentary archive was to be sent to the relevant regional museum. Finds will remain the property of the client with deposition to the relevant regional museum subject to their approval.

The paper and digital archive generated by TPA will remain the property of the Unit until deposited within the appropriate public archive/museum:

CWaC and the museum curator will be notified in writing on completion of fieldwork, with a proposed timetable for deposition of the archive (if required). This should be confirmed in the project report.

CWaC will be informed in writing on final deposition of archive.

#### 5. RESULTS

#### 5.1 Introduction

5.1.1 An outline narrative of the results of the archaeological monitoring during the ground investigations is presented below. The locations of all interventions are shown on Figures 2-4 (Appendix 4) and are accompanied by a full list of contexts within Appendix 1.

#### 5.2 Trial Pits

#### 5.2.1 Trial Pit 101 (Figure 2)

Trial pit 101 was located in Reach One, between the northern bank of the River Dane and Whalley Road. After the removal of the topsoil (Context Number 1011, see Appendix 1) to a depth of 0.2m BGL, a brick wall (1015) was observed along a northwest-southeast orientation. Due to the narrow width of the trench, it was not possible to determine the nature of the construction, or full depth. Only a single course was observed, formed from two bricks laid as stretchers. The bricks themselves were orangey-red, measuring 0.23 x 0.11x 0.09m. This appears to have been overlying, or built onto (1014), a deposit of firm dark grey-brown, clayey, silty-sand with inclusions of ceramic building material (CBM) throughout. This deposit was present to a depth of 0.4m BGL.

The area to the northeast of the wall was truncated by a cable trench [1013] for nearby streetlights. Whereas the area to the southeast contained a gas service trench [1017] which was observed cutting through deposit (1014) to a depth of 1m BGL.

The brick wall (1015) was interpreted as possibly being the remains of a garden wall related to the terrace houses constructed along Whalley Road in the late 19<sup>th</sup> century, as seen on both the 1877 and 1910 OS map of the area (see Figs. 5 and 6). These buildings were most likely constructed for the workers of the nearby Croft and Leftwich Salt Works and were demolished sometime during the first half of the 20<sup>th</sup> century.

#### 5.2.2 Trial Pit 102 (Figure 2)

Trial pit 102 measured 1.2m in length and 0.5m wide. It was located in Reach One, on the northern bank of the River Dane, in the verge of Whalley Road. After the removal of the topsoil (1021) to a depth of 0.2m BGL, two modern services were observed cutting a late 19<sup>th</sup>/early 20<sup>th</sup> century demolition deposit of firm dark-grey-brown clayey-silty-sand with inclusions of occasional brick fragments (1022). This deposit was present to a depth of 0.3m BGL. Cut [1023] was observed to a depth of 0.3m BGL, and related to the street lighting, the second was a gas service main [1025], which was present to a depth of 1.2m BGL.

#### 5.2.3 Trial Pit 103 (Figure 2)

Trial pit 103 was situated at the western end of Reach 1, upon a grass verge between the River Dane and Brockhurst Street. It measured 1m x 0.6m in plan, and was excavated to a depth of 0.75m BGL. A single deposit was observed within the trench, consisting of dark, grey brown, clay silt with containing fragments of concrete paving and CBM. At the base of the trench was a plastic gas pipe, indicating that the pit was located entirely within the construction trench for pipe.

#### 5.2.4 Trial Pit 104 (Figure 2)

Trial pit 104 was excavated at the eastern end of Reach 1. Excavated in two stages, it covered a total area measuring 2m by 0.6m, with a maximum depth of 1m below ground level. Following removal of a tarmac layer, which formed the surface of a footpath and cycle path, a mixed deposit (1041) of made ground was observed with a thickness of 0.36m. Underlying the construction levels for the footpath, was mid to dark brown clay silt deposit, which varied in thickness from 0.2m at the west, deepening to 0.8m at the east. The base of this layer was

marked by a thin lens (0.05m) of coke/charcoal type material (1043). The underlying deposit was a mid to dark orange, clay silt, which is thought to represent undisturbed drift geology.

#### 5.2.4 Trial Pit 201 (Figure 3)

Trial pit 201 measured 0.8m x 0.8m and was located in Reach Two on the north bank of the River Dane, between the Watling Street Medical Practice and the river itself. The aim of this trial hole was to investigate the nature of the foundations of the car park and fence of the medical practice car park. After the removal of the soft, dark-brown-grey sandy-silt topsoil (2011) to a depth of 0.45m BGL; Soft, light-red-brown sand with occasional brick fragments (2012) was revealed, this extended to the limit of the excavations at a depth of up to 0.75m BGL. This material was interpreted as bedding for the concrete car park foundation. No archaeology was observed.

#### 5.2.5 **Trial Pit 202 (Figure 3)**

Trial pit 202 was located in Reach Two on the north bank of the River Dane just to the east of the A533 bridge over the river. The aim of this trial hole was to investigate the nature of the concrete rafts of the existing river wall. After the removal of the soft, dark-grey sandy silt topsoil (2021) to a depth of 0.1m BGL; a soft dark-grey sandy-silt, with inclusions of occasional brick fragments subsoil (2022) was observed to a depth of 0.3m BGL. At this depth compacted angular stone up to 250mm across (from now on referred to as Type 1) (2023) was observed ton a depth of 0.4m BGL, which was interpreted as covering/ weighting on top of the existing concrete raft of the river wall. Following this, a firm, dark-grey sandy-silt, with inclusions of frequent brick and concrete fragments (2024) was observed to a depth of 0.9m BGL, which sealed the concrete raft of the existing river wall (2025), which was observed at this point, which was also the limit of the excavation. The material was interpreted as 20<sup>th</sup> century made ground. No archaeology was observed.

#### 5.2.7 Trial Pit 203 (Figure 3)

Trial pit 203 was located in Reach Two on the north bank of the River Dane between the River Bank Day Nursery and the river. After the removal of the tarmac (2031) to a depth of 0.1m BGL, type 1 (2032) was observed to a depth of 0.75m BGL, which was interpreted as ballast above the concrete raft of the existing river wall (2033). The concrete raft was the limit of the excavation No archaeology was observed.

#### 5.2.8 Trial Pit 204 (Figure 3)

Trial pit 204 was located in Reach Two on the east bank of the River Weaver, just to the south of the Town Bridge, up against an existing building. The aim of the trial hole was to investigate the nature of the foundations of the existing building. After the removal of the topsoil (2041) to a depth of 0.1m BGL; a soft, mid-grey-brown sandy-clayey-silt with inclusions of frequent brick and sand stone fragments and occasional fragments of slate (2024). This material extended to a depth of 0.95m BGL, which was the limit of the excavation and was interpreted as 20<sup>th</sup> century made ground associated with the construction of the buildings cellar or the "jacking-up" of the building in the 20<sup>th</sup> century. No archaeology was observed.

#### 5.2.9 Trial Pit 301 (Figure 4)

Trial pit 301 was located in Reach Three on the east bank of the River Weaver, at the northern extent of the existing quay on Weaver Way. After the removal of the tarmac (3011) and tarmac sub-base (3012) to a depth of 0.2m BGL, two distinct deposits were observed. At the western side of the trial hole, white type 1 gravel (3013) was observed, to a depth of 1m BGL, which was the backfill of the previous trial hole excavated in this location. On the eastern side of the trial hole, compacted angular limestone fragments between (0.02 and 0.2m across) (3014) was observed to a depth of 0.5m BGL. At this depth, a brick surface (3015) was observed, consisting of red bricks measuring 0.24 x 0.11 x 0.9m (some of which were frogged). This surface sealed a deposit of loose black clinker and ash (3017), which extended to the maximum depth of the trial hole, 1.35m BGL, and butted against the raft of

the existing quay wall (3018). The brick layer (3015) was interpreted as a  $19^{th}$  century feature surface, possibly related to the late  $19^{th}$  century Baronsquay Salt Works (see Fig. 7), or one of the houses that replaced said works by 1910 (see Fig 8). The black clinker (3017) was interpreted as  $19^{th}/20^{th}$  century industrial waste, used to raise the ground level around the river during the late  $19^{th}/early\ 20^{th}$  century.

#### 5.2.10 Trial Pit 302 (Figure 4)

Trial pit 302 was located in Reach Three on the east bank of the River Weaver, on the existing quay on Weaver Way. After the removal of the tarmac (3021) to a depth of 0.1m BGL, reinforced concrete (3022) was observed to a depth of 0.3m BGL. This material sealed a mixture of compacted tarmac and concrete fragments (3023) to a depth of 0.7m BGL, at which point, soft black silty-sand was observed, which extended to the limit of the trial hole, at a depth of 0.85m BGL. This sand sealed two high voltage electric services. No archaeology was observed.

#### 5.2.11 Trial Pit 303 (Figure 4)

Trial pit 303 was located in Reach Three on the east bank of the River Weaver, on the existing quay on Weaver Way. After the removal of the tarmac (3031), tarmac sub-base (3032) and type 1 (3033) to a depth of 0.4m BGL, a dark-grey sandy-silt with inclusions of fragments of brick and concrete was observed to a depth of up to 0.7m BGL. At this depth loose red-brown sand was observed, which sealed two high voltage electric services, at the limit of the Trialhole, at a depth of 0.8m BGL. Both (3035) and (3036) were interpreted as backfill of the high voltage cable trench. At a depth of 0.5m BGL, the concrete base of the existing wharf (3034) was also observed at the western limit of the trial hole. No archaeology was observed.

#### 5.2.12 Trial Pit 304 (Figure 4)

Trial pit 304 was located in Reach 3 on the east bank of the River Weaver, just to the north of the Town Bridge, up against the northern wall of an existing building. After the removal of the topsoil (3041) to a depth of 0.1m BGL, loose light-red-brown sand with frequent inclusions of brick and concrete fragments (3042) was observed to a depth of 1.0m BGL, the limit of the excavation. This material was interpreted as 20<sup>th</sup> century made ground or fill associated with the construction of the buildings cellar, or associated with the "jacking up" of the building during the 20<sup>th</sup> century. No archaeology was observed.

#### 6. CONCLUSION AND RECOMMENDATIONS

- 6.1 The observations made during these investigations were limited by the nature of the work undertaken. Nevertheless, they have enabled a deeper understanding of the existing deposits and thereby any potential impact that may result from further works during the forthcoming Northwich FRMS development.
- 6.2 Within the vicinity of Reach 1, the borehole investigations carried out by WYG Environment had previously identified made ground deposits present up to 5.7m BGL. Based upon the results of these Trial Pits, it is now known that towards the eastern end of the Reach, these deposits were much shallower. Specifically within Trial Pit 104, the made ground deposits were observed to a minimum depth of 0.64m BGL, with what is believed to represent undisturbed alluvial deposits immediately underlying them.
- 6.3 Further to the west, within Trial Pits 101, 102 and 103 it was not possible to observe the base of the made ground. However, the remains of a wall within Trial Pit 101 demonstrate that some structural elements are present within these disturbed deposits. Furthermore, they are present at a relatively shallow depth, just 0.2m BGL. Based upon the OS maps of 1877 and 1910 it is likely that these relate to a number of dwellings that were present along the southern edge of Whalley Road. Although these remains were unique to Trial Pit 101 within Reach 1, it is worth noting that Trial Pits 102 and 103 were focused entirely upon modern services, and as such were unable to investigate adjacent, or earlier deposits.
- 6.4 Within Reaches 2 and 3, the majority of the Trial Pits were excavated into disturbed modern deposits resulting from 20<sup>th</sup> century activity. The only notable exception is that of Trial Pit 301, within which a brick surface was encountered at a depth of 0.5m BGL. Due to the narrow window within which this surface was observed, it is uncertain as to what its original function may have been, or to which buildings it relates. Analysis of the 1877 and 1910 OS maps has demonstrated that the Baronsquay Saltworks were positioned close by, although further dwellings also appeared at this location by 1910.
- On the evidence these observations, it is possible that the proposed construction cut for both the flood wall construction along Reach 1 will expose further remains relating to the wall within Trial Pit 101. Whereas the shallow deposits at the eastern end of Reach 1 have shown that any topsoil and subsoil stripping relating to the construction of an embankment, will likely expose the alluvial clay silts of unknown archaeological potential.
- 6.6 Within Reach 2 the limited results do not allow any informed conclusions to be drawn on the nature of the deposits beyond 0.9m BGL.
- 6.7 Within Reach 3, although the evidence for a brick surface within Trial Pit 301 has shown that 19<sup>th</sup> and 20<sup>th</sup> century structures may be encountered during the excavation of the proposed construction cut for the flood wall.

#### 7. BIBLIOGRAPHY

British Geological Survey Map Viewer; http://mapapps.bgs.ac.uk/geologyofbritain/home.html

Cranfield Soil and Agrifoods Institute Soilscape Map Viewer; www.landis.org.uk/soilscapes

Curzon, J. B. (1993) Book of Northwich and District. Baron Birch: South Midlands

Humphreys, R. (2014) Northwich Town Centre Flood Risk Management Scheme (FRMS) Appendix J: Historic Environment Baseline Assessment, TPA Rpt. 100/210

Mottershead G. (2013) Former Magistrates' Court, Brockhurst Street, Northwich, Cheshire West; Oxford Archaeology North

## **Appendix 1 - Context Register**

Trial Hole	Context	Туре	Description
THAI HOIC	Number	Type	Description
101	1011	Lover	Tongoil
101	1011	Layer Fill	Topsoil Service Backfill
	1012	Cut	Service Backilli Service Cut
	1013		Demolition Layer
	1014	Layer Wall	Brick Wall
	1016	Fill	Service Backfill
	1017	Cut	Service Cut
102	1017	Layer	Topsoil
102	1021		Demolition Layer
	1022	Layer Fill	Service Backfill
	1023	Cut	Service Cut
	1024	Fill	Service Cut  Service Backfill
	1025	Cut	Service Backilli Service Cut
103			
103	1031	Deposit	Probable fill of service trench
104	1041 1042	Layer	Tarmac and made ground
		Layer	Orange brown clay silt
	1043	Layer	Clinker/charcoal lens
004	1044	Layer	Dark orange clay silt
201	2011	Layer	Topsoil
000	2012	Layer	Bedding
202	2021	Layer	Topsoil
	2022	Layer	Subsoil
	2023	Layer	Ballast
	2024	Layer	Ballast
000	2025	Structure	Concrete Raft
203	2031	Layer	Tarmac
	2032	Layer	Ballast
20.4	2033	Structure	Concrete Raft
204	2041	Layer	Topsoil
201	2042	Layer	Made-Ground
301	3011	Layer	Tarmac
	3012	Layer	Tarmac Sub-base
	3013	Fill	Type One
	3014	Layer	Road Make-up
	3015	Layer	Brick Surface
	3016	Cut	Old Trial Hole Cut
	3017	Layer	19 <sup>th</sup> ? Century Made Ground
	3018	Structure	Concrete Raft
302	3021	Layer	Tarmac
	3022	Layer	Concrete
	3023	Layer	HV Service Backfill
	3024	Layer	HV Service Backfill
303	3031	Layer	Tarmac
	3032	Layer	Tarmac Sub-Base
	3033	Layer	Road Make-Up
	3034	Structure	Concrete Base
	3035	Fill	HV Service Backfill
	3036	Fill	HV Service Backfill
304	3041	Layer	Topsoil
	3042	Layer	Made-Ground

## Appendix 2 - Index of Archive and Arrangements for Deposition

Field Records	Description	Number
Watching brief record sheets	Record of visit and work carried out	7
Trench Record Sheets	Record of each intervention	12
Photographs:-		
Digital	All views	52
Documents	Description	Number
Written scheme of investigation	Statement of the aims, objectives and methodology for the project.	1
Health & Safety	Safe working statement & risk assessment	1
Report to client	Report of findings of the watching brief.	1

The archive is currently held in the offices of Trent & Peak Archaeology, Unit 1, Holly Lane, Chilwell, Nottingham, NG9 4AB. It will be deposited at an appropriate museum by the completion of the Northwich FRMS.

## **Appendix 3 - Plates**



Plate 1: TP 101, showing brick wall (1015)



Plate 2: TP 102



Plate 3: TP 103



Plate4: TP 104



Plate 5: TP 201



Plate 6: TP 202



Plate 7: TP 203



Plate 8: TP 204



Plate 9: TP 301, showing brick surface (3015)



Plate 10: TP 301, fully excavated



Plate 11: TP 302

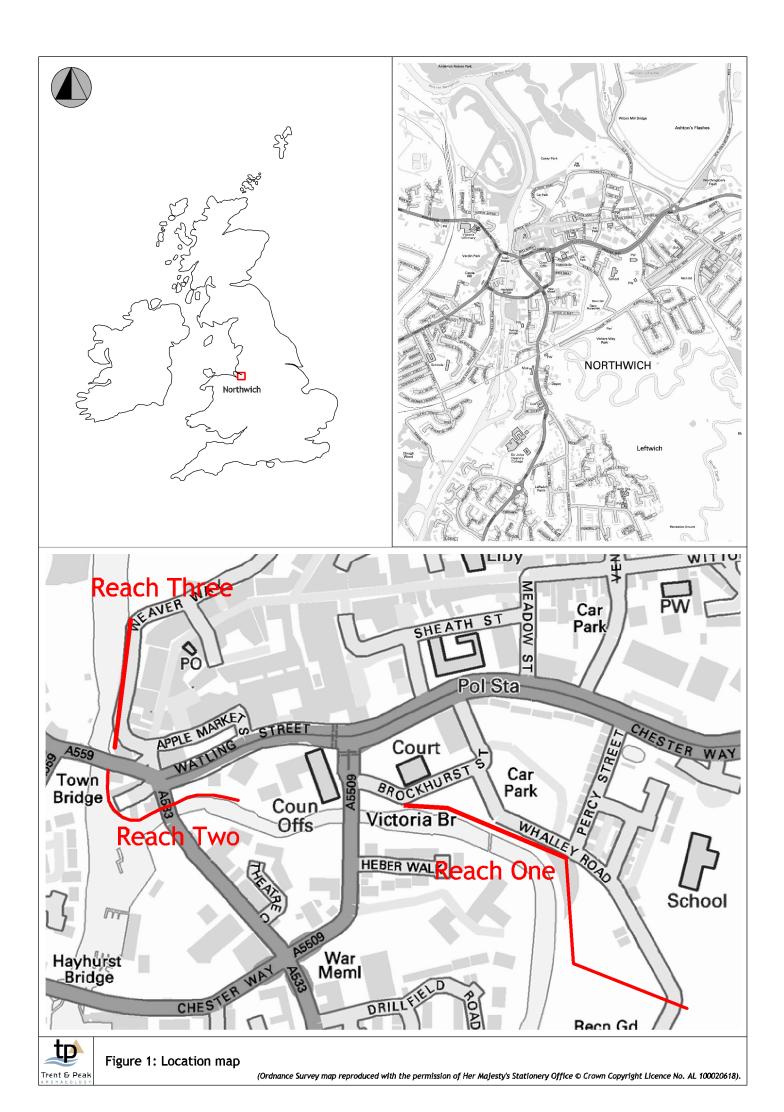


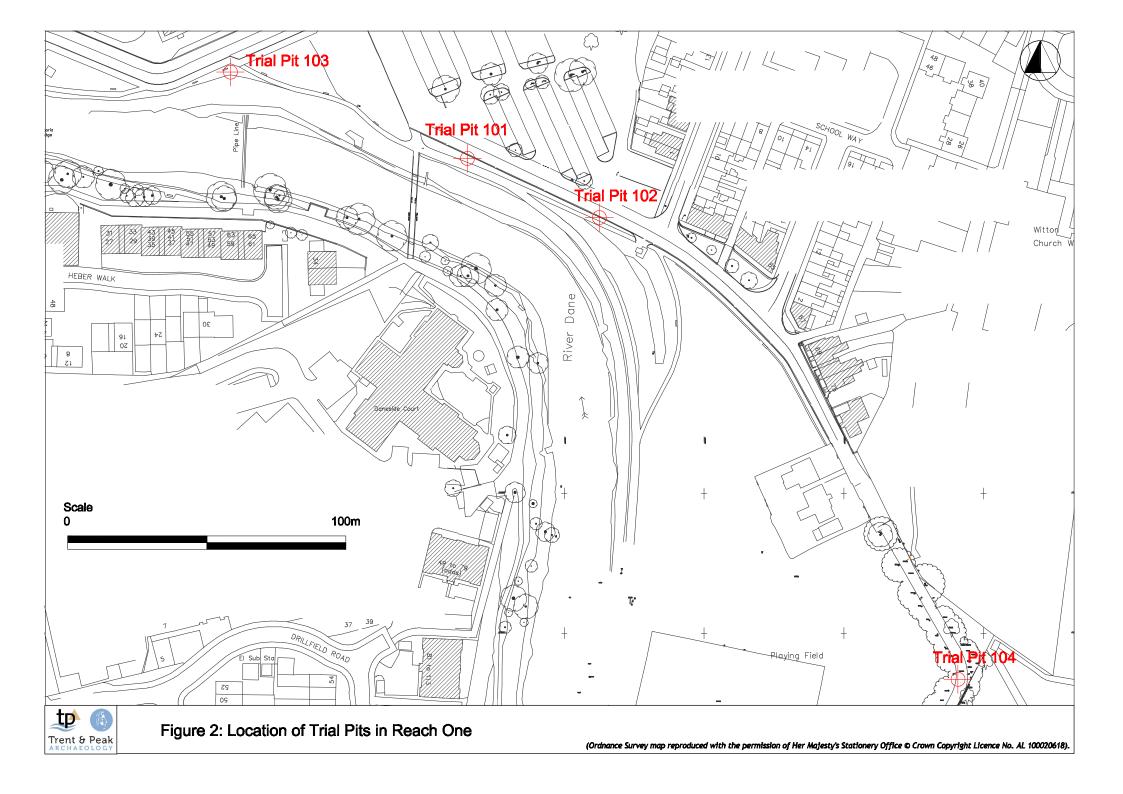
Plate 12: TP 303

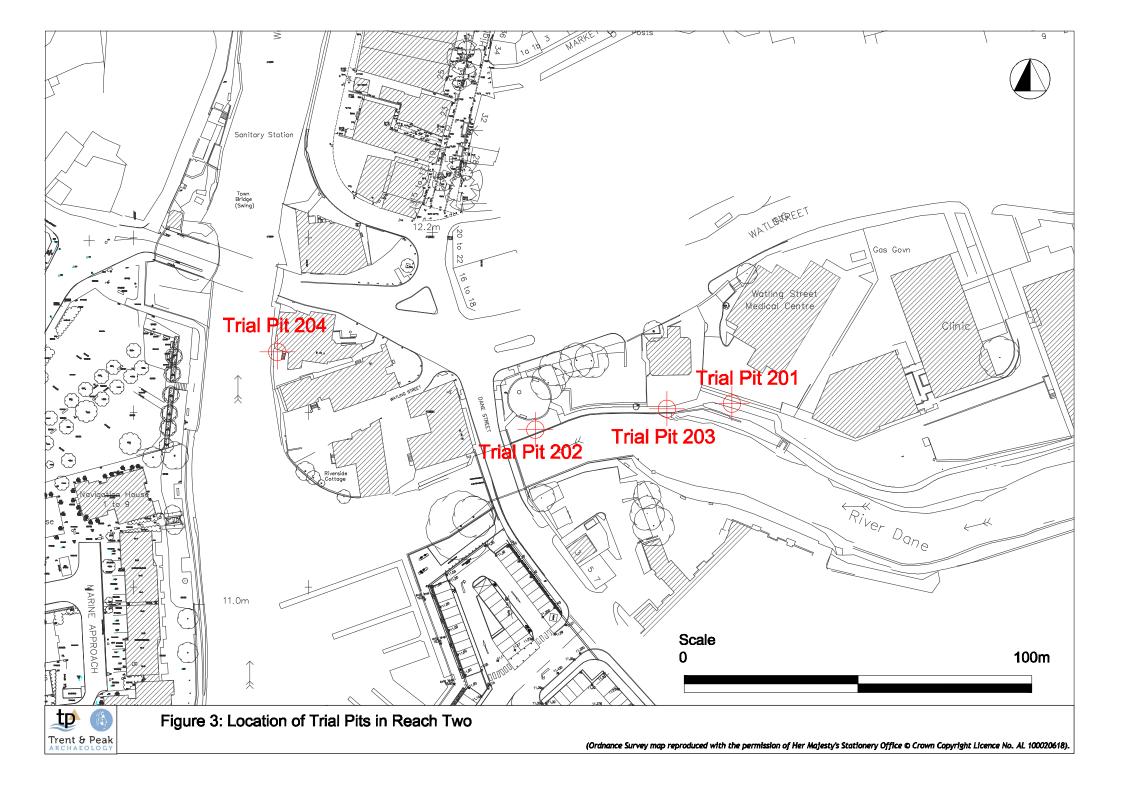


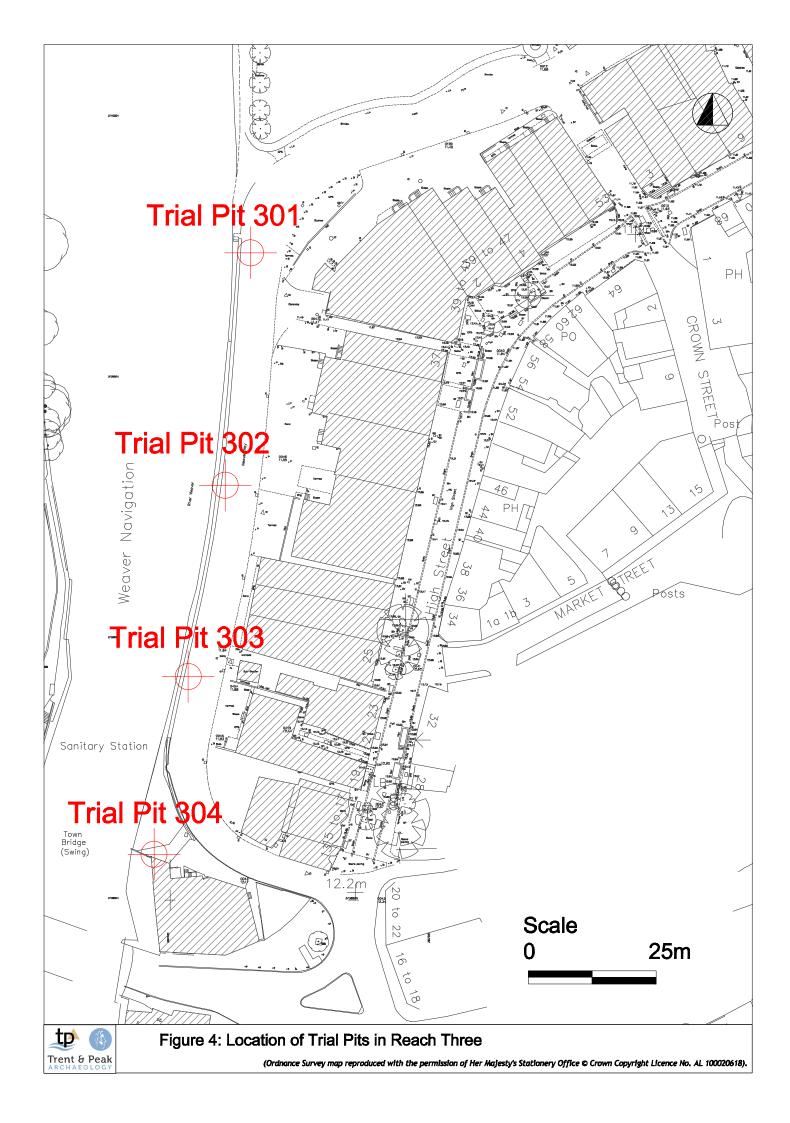
Plate 13: TP 304

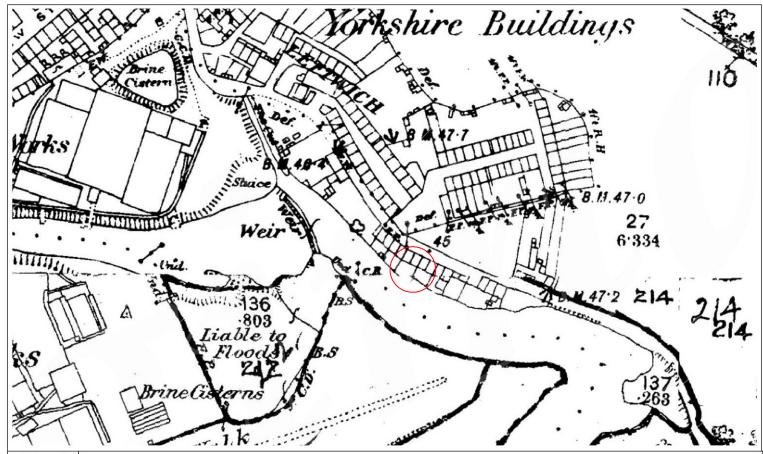
## **Appendix 4 - Figures**











Trent & Peak

Figure 5: 1877 OS Map showing approximate location of TP101

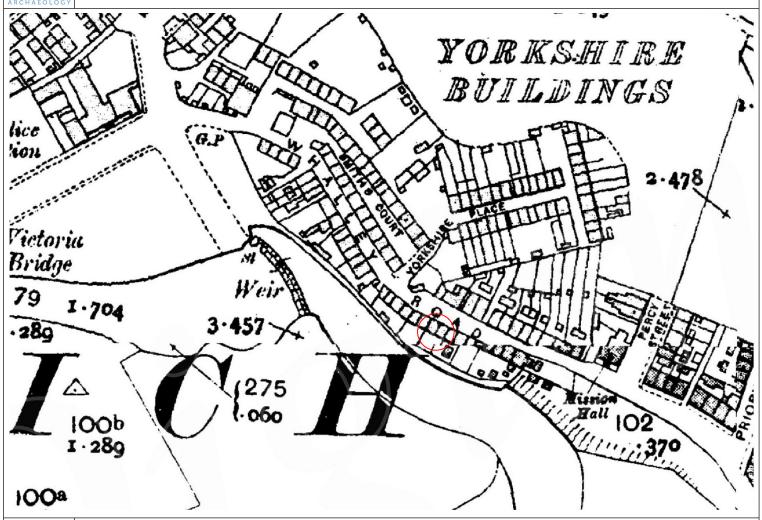
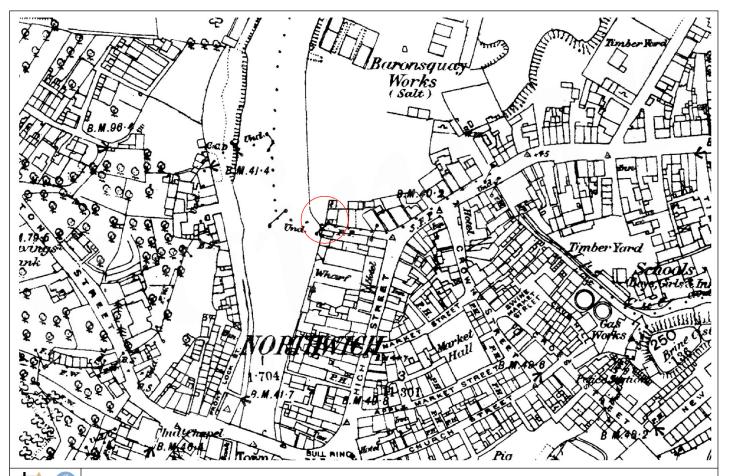




Figure 6: 1910 OS Map showing approximate location of TP101



Trent & Peak

Figure 7: 1880 OS Map showing approximate location of TP301

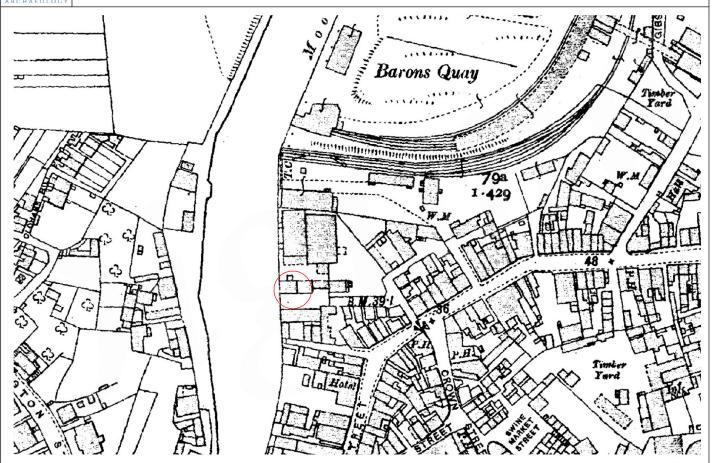




Figure 8: 1910 OS Map showing approximate location of TP301