Archaeology Wales

Stephenson Street (Newport)

Archaeological Watching Brief



By James Evans BA (Hons), PgDip, PCIfA

Report No. 1787



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Archaeological Watching Brief

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Non-Technical Summary

This report results from work undertaken by Archaeology Wales Ltd (AW) for Natural Resources Wales (NRW) on the east bank of the river Usk, at Corporation Road, Newport, Gwent. The works are centred approximately at NGR ST 33296 85279. The report details the results of an archaeological watching brief that took place to ensure the preservation by record of any archaeological remains encountered during the groundworks.

The intrusive groundworks were associated with the ground investigation (GI) trial-pitting as a part of the Stephenson Street Flood Risk Management Project. The proposed location of the individual trial pits can be found in Appendix 1. However, some of the trial pits were located in different positions due to obstacles and unforeseen services identified whilst on site. The exact location of the trial pits can be seen in Figure 1.

The excavations revealed no archaeological features or artefacts. All work was undertaken to the Standards and Guidance for an Archaeological Watching Brief (2014) as set by the Chartered Institute for Archaeologists (CIfA).

Mae'r adroddiad hwn yn ganlyniad i waith a wnaed gan Archaeology Cymru Cyf ar gyfer Cyfoeth Naturiol Cymru ar ochr ddwyreiniol yr afon Wysg, ar Heol Corporation, Casnewydd, Gwent. Mae'r gwaith wedi'i leoli yn oddeutu NGR ST 33296 85279. Mae'r adroddiad yn cynnwys manylion canlyniadau briff gwylio archeolegol a gynhaliwyd i sicrhau cadwraeth ar gofnod o unrhyw weddillion archeolegol a ganfuwyd yn ystod y gwaith tir.

Roedd y gwaith tir ymwthiol yn gysylltiedig â phyllau prawf yr astudiaeth tir fel rhan o'r Prosiect Rheoli Risg Llifogydd ar Stryd Stephenson. Gellir canfod lleoliad arfaethedig y pyllau prawf unigol yn Atodiad 1. Fodd bynnag, roedd rhai o'r pyllau prawf wedi'u lleoli mewn gwahanol safleoedd oherwydd rhwystrau a gwasanaethau annisgwyl a welwyd ar y safle. Gellir gweld union leoliad y pyllau prawf yn Ffigur 1.

Ni wnaeth y gwaith cloddio ddatgelu unrhyw nodweddion neu arteffactau archeolegol. Gwnaed yr holl waith yn unol â'r Safonau a'r Canllawiau ar gyfer Briff Gwylio Archeolegol (2014) fel y'u pennwyd gan Sefydliad Siartredig yr Archeolegwyr (SSA).

1. Introduction

Location and scope of work

Archaeology Wales Ltd (AW) was commissioned by Natural Resources Wales (NRW) to undertake a watching brief on the east bank of the river Usk, at Corporation Road, Newport, Gwent. The watching brief was undertaken during ground intrusive works associated with the ground investigation (GI) trial-pitting as a part of the Stephenson Street Flood Risk Management Project. The works were centred at approximately at NGR ST 33296 85279. The proposed location and the exact location of the trial pits can be found in Appendix 1 and Figure 1 respectively.

The requirements for the archaeological mitigation were agreed with Glamorgan-Gwent Archaeological Trust APM (GGAT-APM) in its capacity as archaeological advisors to Newport City Council. GGAT-APM recommended that a watching brief of the development area was undertaken during groundworks to mitigate the impact of the proposed development on the archaeological resource.

Consequently, a Written Scheme of Investigation (WSI) was prepared by Charley James-Martin (AW Project Manager - MCIfA) prior to the work taking place. This was subsequently approved by GGAT-APM. All works were carried out in accordance with the CIfA Standard and Guidance for Archaeological Watching Briefs (2014).

The watching brief was conducted in two phases. The first phase of the watching brief, which monitored the excavation of eight GI trial pits around Corporation Road, took place between the 20th to 22nd March 2019. The second phase of the watching brief, which monitored the drilling of three dynamic probe boreholes, and the hand excavation of one GI trial pit around the 'railway site', took place on 9th March 2019. Both phases were supervised by James Evans (PCIfA). The project was managed by Irene Garcia Rovira (AW Project Manager - MCIfA).

Topography and Geology

The site is located on the east bank of the River Usk around Corporation Road, Newport. The trial pitting will take place in two locations, one referred to as Corporation Road Site and the other, the Railway Site (Figure 1).

The Site was defined as a floodplain and bounded to the west and south by the River Usk and to the north and east by industrial areas. Vehicular access to the site was gained from the east, through Stephenson Street.

The geology of the area forms part of the Mercia Mudstone Group Formation composed of a mix of mudstone, siltstones, sandstones and halite. The superficial deposits are characterised as Tidal Flat Deposits composed of clay and silt (BGS 2019).

2. Methodology

The groundworks of Phase 1 (Figure 1) comprised of the excavation of eight trial pits at the site of Corporation Road. These trial pits were dug using a 16-tonne excavator with a toothless bucket, and a hydraulic pecker was also used to break through concrete deposits within some

Trial Pits (Plate 1). The trial pits were also given predefined numbers, and they were as follows:

- Trial Pit 008 measured 2m in length, 0.9m in width and 3m in depth.
- Trial Pit 006 measured 1.72m in length, 0.9m in width and 0.4m in depth.
- Trial Pit 007 measured 3.8m in length, 0.9m in width and 3.5m in depth.
- Trial Pit 013 measured 3.25m in length, 0.9m in width and 3.1m in depth.
- Trail Pit 012 measured 3.1m in length, 1.45m in width and 2m in depth.
- Trial Pit 011 measured 3.2m in length, 0.9m in width and 4m in depth.
- Trial Pit 010 measured 3.1m in length, 1.8m in width and 4m in depth.
- Trial Pit 009 measured 3.1m in length, 0.9m in width and 2.3m in depth.

The groundworks of Phase 2 (Figure 1) comprised of the drilling of three dynamic probes and one hand dug trial pit at the 'railway site' (Plate 2). Due to access issues at this site a small tracked drilling rig (Plate 3) had to be used for TP014, TP015, TP016. TP017 had to be dug by hand. The results from the dynamic probe were recorded by Dynamic Sampling UK Ltd, and can be seen in Figure 2. The Phase 2 trial pits were also given predefined numbers, and they were as follows:

- Trial Pit 014 (dynamic probe), measured a depth of 12m.
- Trial Pit 015 (dynamic probe), measured a depth of 12m.
- Trial Pit 016 (dynamic probe), measured a depth of 10m.
- Trial Pit 017 (hand dug), measured 0.22m in length, 0.13m in width and 0.4m in depth.

All deposits were recorded by means of a continuous context numbering system and recorded on pro-forma context sheets. Sections and plans of the excavation were photographed using a 16MP digital camera. All of the work was undertaken in accordance with the CIfA's Standards and Guidance for an archaeological watching brief (2014) and current Health and Safety legislation.

Archaeological and Historical Background

The ground investigation area does not lie in close proximity to any Scheduled Monument. There is a prominent Grade I Listed Building located at the northern extent of the ground investigation area. This is the Transporter Bridge (LB17414, LB17415 and LB3076). The bridge was built in 1906 to allow high-masted ships passage to Newport's wharves. This along with the Tees Transporter Bridge are the only two functioning transporter bridges in the UK, and is considered the finer of the two. Also, there are only a few surviving examples of this style of bridge in the world.

Little is known about the prehistoric period at Newport. Most evidence comes from individual finds spots. The Roman period is dominated by the *Isca Augusta* legionary fortress at Caerleon located 4.8km to the north of Newport. There have been some Roman finds discovered in Newport, however, no structural evidence has been noted to date.

Newport boasts some impressive medieval remains and it is during this time that the area developed as a port. In 2002 the well-preserved remains of a large medieval ship (02339g/307059) were discovered. The ship has been provisionally dated by dendrochronology to 1465-1466. It was discovered 115m to the south of Town Pill some

1.8km upstream of the ground investigation area (Howell and Dunning 2004). Newport's importance as a maritime trading centre continued into the post-medieval period.

3. Watching Brief Results

TP008

The basal deposit revealed during groundworks was deposit (004). This deposit was characterised as a firm, blue grey clay, and was identified as an alluvial deposit. Its thickness was 1.7m and was encountered at 1.3m below surface level and continued to 3m (limit of excavation). Directly overlaying (004) was (003). (003) was characterised as a loose, midbrown silty sand with frequent inclusions of small sub-rounded stones. (003) was 0.85m thick and was encountered between 0.45m to 1.3m below surface level. This appeared to be consistent with a natural riverbed material and could be part of the riverbed of the nearby River Usk. (002) overlaid (003), and was described as a soft, mid-brown silty clay, with infrequent inclusions of small sub-rounded stones (Plate 4). (002) had a thickness of 0.2m and was uncovered at 0.25m to 0.45m below surface level. The uppermost deposit of this trial pit was (001), and this was recorded as a very compact deposit of concrete and had a depth of 0.25m. The concrete extended to cover the entire area where TP008 was located and appears to have been related to the industrial activity in the vicinity. No archaeological features or artefacts were discovered.

TP006

TP006 was located on top of the embankment (see Figure 1) and had a section of the Welsh Coastal Path running along the top of it. The embankment was on average 1.2m above the road surface. The basal deposit was a very compact layer of concrete (007) which was only 0.4m from surface level. This deposit appears to have been used as part of the construction process of the embankment. Overlying (007) was (006). This was described as a loose, red brown sandy silt with frequent inclusions of sub-angular stones and had a depth of 0.22m. This deposit again appears to be related to the construction of the embankment (Plate 5). Directly overlying (006) was (005). This was characterised as a soft, light/mid brown silty loam and appeared to be the topsoil and was covered with turf. The topsoil had a depth of 0.18m. No archaeological features or artefacts were discovered.

TP007

The basal deposit was a firm, blue grey clay and was identified as the alluvial deposit (011). The alluvium deposit had a depth of 2.1m and was encountered at 1.4m to 3.5m (limit of excavation). Directly overlaying this was (010) and this was characterised as a loose black/dark brown sandy gravel, with frequent inclusions of rubbish. It had a depth of 0.7m and was encountered at 0.7m to 1.4m below surface level. The rubbish included a substantial number of plastic bottles. There were some blue poison bottles found, and for this reason no examples of the bottles were recovered due to potential contamination. The bottles suggest a potential date of the mid to late 20th century. Overlying this deposit was (009) which had a depth of 0.46m and was found at 0.24m to 0.7m below surface level. This deposit was recorded as being a loose black/dark brown ash with frequent inclusions of building bricks. The ash could be the waste material of a former railway track in operation in the area connected to the heavy industry in the Newport dockland area. The inclusions of building bricks could be the result building debris. It is possible that the ash and building debris could have been used to seal the rubbish found within (010). The top deposit was a compact concrete deposit (008),

with metal rebar throughout the deposit, and had a depth of 0.24m. No archaeological features or artefacts of significance were discovered (Plate 6).

TP013

The basal deposit was a firm, blue grey clay and was identified as the alluvial deposit (014). The alluvium deposit was encountered at 0.5m to 3.1m (limit of excavation) below surface level. Directly overlaying this was (013), and this was characterised as a loose red orange sandy silt, with inclusions of brick and building debris. (013) had a depth of 0.25m and was encountered at 0.25m to 0.5m below surface level. It appears that this area of land was built up using the demolition of rubble of building to create what is now an industrial storage yard (Plate 7). The top deposit of this trial pit was compact concrete deposit (012) with metal rebar throughout the deposit. This concrete deposit is the surface material of the storage yard and had a depth of 0.25m.

TP012

The stratigraphy of this trial pit is very similar to that of TP013 and is located in close proximity to it (see Figure 1). (017) was the basal deposit of alluvial clay, found at 0.55m to 2m below surface level (1.45m in depth). This was overlaid by (016) a deposit of building debris, found at 0.27m to 0.55m below surface level (0.28m in depth). This was sealed by (015) a 0.27m deposit of concrete.

TP011

The basal deposit (020) was recorded as the clay alluvial deposit. It was encountered at 1.7m to 4m below surface level (2.3m in depth). This was overlaid by (019) a soft dark brown/black ash with infrequent inclusions of small sub-angular stones. (019) was encountered at 0.35m to 1.7m below surface level (1.35m in depth). Within this deposit there was inclusions of relatively modern rubbish (Plate 8), for example, plastic, etc. This was sealed with (018) a soft, red brown, silty sand with infrequent inclusions of small sub-angular stones. It had a depth of 0.35m. This deposit covers the entire area where TP011, TP010 and TP009 were located (see Figure 1).

TP010

The stratigraphy of this trial pit is identical to that of TP011. (023) was the basal deposit of alluvium clay and was found at 1m to 4m below surface level (3m in depth). This was overlaid by (022) a soft ash deposit, found between 0.38m to 1m below ground level (0.62m in depth). This was sealed by (021) a soft reddish brown, silty sand which had a depth of 0.38m.

TP009

Again, the stratigraphy of this trial pit is identical to that of TP011 and TP010. (026) was the basal deposit of alluvial clay and was found at 1m to 2.4m below surface level (1.4m in depth). This was overlaid by (025) a soft ash deposit, found between 0.35m to 1m (0.65m in depth). This was then sealed by (024) a soft red brown, silty sand which had a depth of 0.35m.

TP014, TP015 & TP016

These trial pits were drilled by the dynamic probe. See Figure 2 for more details.

TP017

The basal deposit (027) was the only deposit encountered during the hand excavation of this trial pit (Plate 9). It was located on the slope of what appears to be a natural banking, and the deposit certainly indicates this. (027) was recorded as being a compact, light grey brown, clay

deposit similar to the alluvium deposit found within other trial pits dug during the watching brief. It measured 0.31m in depth. Above (027) was very thin covering of vegetation. It appears that this location has not encountered any previous human activity.

4. Finds

No finds were recovered from the watching brief, and no archaeological features were recorded.

5. Conclusion

No archaeological features or finds were revealed during the watching brief. It can therefore be concluded that the work did not negatively impact the archaeological resource of the area.

6. Bibliography

CIfA (2014) Standard and Guidance for an Archaeological Watching Brief (Unpublished Guidance accessible at www.archaeologists.net).

Chartered Institute for Archaeologists, 2014. Standards and guidance for the collection, compilation, transfer and deposition of archaeological archives.

Chartered Institute for Archaeologists, 2014. Standards and guidance for the collection, documentation, conservation and research of archaeological materials.

Chartered Institute for Archaeologists, 2014, Standards and guidance for archaeological watching brief.

Websites

British Geological Survey: Geology of Britain viewer: www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html

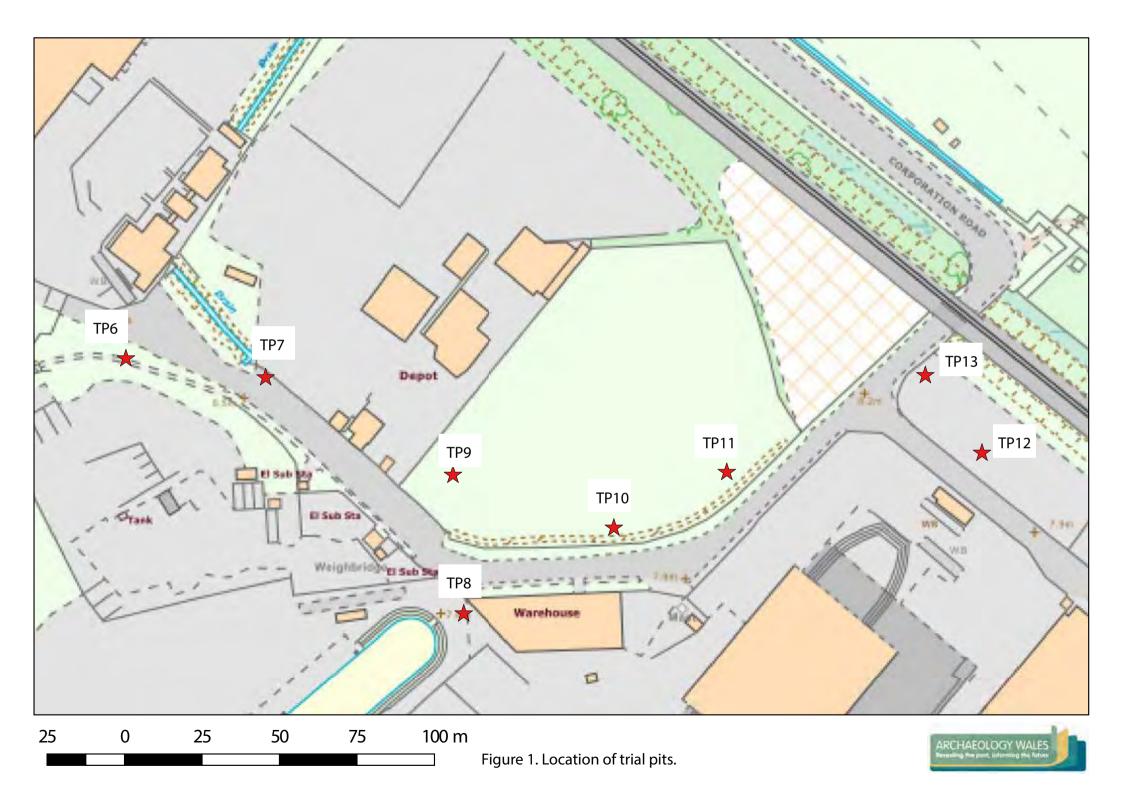
Appendix 1 - Proposed location of trial pits

Trial Hole Number	Eastings	Northings	Scheduled Depth (m)						
Corporation Road Site									
TP006	332894	185428	3.0						
TP007	332941	185413	3.0						
TP008	332990	185358	4.0						
TP009	332978	185388	4.0						
TP010	333033	185374	3.0						
TP011	333100	185413	4.0						
TP012	333150	185402	3.0						

TP013	333141	185428	3.0
Railway Site			
TP014	333563	185059	1.2
TP015	333584	185057	1.2
TP016	333610	185058	1.2

Appendix 2 – Context Inventory

N°	Туре	Description	Relationship	Trial Pit N°
001	Deposit	Concrete deposit	Above (002)	TP008
002	Deposit	Soft brown silty clay	Below (001)	TP008
003	Deposit	Riverbed material	Below (002)	TP008
004	Deposit	Bluish grey clay - alluvium	Below (003)	TP008
005	Deposit	Topsoil	Above (006)	TP006
006	Deposit	Reddish brown sandy silt	Below (005)	TP006
007	Deposit	Concrete	Below (006)	TP006
800	Deposit	Concrete road deposit	Above (009)	TP007
009	Deposit	Black ashy sandy silt	Below (008)	TP007
010	Deposit	Brick and building rubble	Below (009)	TP007
011	Deposit	Bluish grey clay - alluvium	Below (010)	TP007
012	Deposit	Concrete	Above (013)	TP013
013	Deposit	Brick and building rubble	Below (012)	TP013
014	Deposit	Bluish grey clay - alluvium	Below (013)	TP013
015	Deposit	Concrete	Above (016)	TP012
016	Deposit	Reddish brown silty sand	Below (015)	TP012
017	Deposit	Bluish grey clay – alluvium	Below (016)	TP012
018	Deposit	Reddish brown silty sand	Above (019)	TP011
019	Deposit	Dark brown/black ash deposit	Below (018)	TP011
020	Deposit	Bluish grey clay – alluvium	Below (019)	TP011
021	Deposit	Reddish brown silty sand	Above (022)	TP010
022	Deposit	Dark brown/black ash deposit	Below (021)	TP010
023	Deposit	Bluish grey clay – alluvium	Below (022)	TP010
024	Deposit	Reddish brown silty sand	Above (025)	TP009
025	Deposit	Dark brown/black ash deposit	Below (024)	TP009
026	Deposit	Bluish grey clay – alluvium	Below (025)	TP009
027	Deposit	Light greyish brown – alluvium	N/A	TP017



DYNAMIC SAMPLING UK LTD

DYNAMIC PROBE RECORD

Project: A112258 LIBERTY STEEL NEWPORT

Probehole no. 16

Client: Wy. G-

Date: 94 19

DEPTH (m)	BLOW	Torque Reading	DEPTH (m)	BLOW	Torque Reading	DEPTH (m)	BLOW	Torque Reading	DEPTH (m)	BLOW COUNT	Torque Reading	DEPTH (m)	BLOW	Torque Reading
0.0 - 0.1	M		3.0 - 3.1	0		6.0 - 6.1	l		9.0 - 9.1	1		12.0 - 12.1		
0.1 - 0.2	01/		3.1 - 3.2	0		6.1 - 6.2	1		9.1 - 9.2	1		12.1 - 12.2		
0.2 - 0.3	1.6		3.2 - 3.3	0		6.2 - 6.3	1		9.2 - 9.3	0		12.2 - 12.3		
0.3 - 0.4	V		3.3 - 3.4	6		6.3 - 6.4	1		9.3 - 9.4	0		12.3 - 12.4		
0.4 - 0.5	1		3.4 - 3.5	0		6.4 - 6.5	1		9.4 - 9.5	0		12.4 - 12.5		
0.5 - 0.6	1		3.5 - 3.6	(6.5 - 6.6	1		9.5 - 9.6	(12.5 - 12.6		
0.6 - 0.7	1		3.6 - 3.7	- (6.6 - 6.7	0		9.6 - 9.7	1		12.6 - 12.7		
0.7 - 0.8	0		3.7 - 3.8	(6.7 - 6.8	6		9.7 - 9.8	-		12.7 - 12.8		
0.8 - 0.9	0		3.8 - 3.9	1		6.8 - 6.9	(9.8 - 9.9	1		12.8 - 12.9		
0.9 - 1.0	0		3.9 - 4.0	-		6.9 - 7.0	1		9.9 - 10.0	1		12.9 - 13.0		
1.0 - 1.1	0		4.0 - 4.1	1		7.0 - 7.1	1		10.0 - 10.1			13.0 - 13.1		
1.1 - 1.2	0		4.1 - 4.2	1		7.1 - 7.2	0		10.1 - 10.2			13.1 - 13.2		
1.2 - 1.3	(4.2 - 4.3	1		7.2 - 7.3	0		10.2 - 10.3			13.2 - 13.3		
1.3 - 1.4	(4.3 - 4.4	l		7.3 - 7.4	0		10.3 - 10.4			13.3 - 13.4		
1.4 - 1.5	1		4.4 - 4.5	0		7.4 - 7.5	6		10.4 - 10.5			13.4 - 13.5		
1.5 - 1.6	i		4.5 - 4.6	6		7.5 - 7.6	1		10.5 - 10.6			13.5 - 13.6		
1.6 - 1.7	ŧ		4.6 - 4.7	0		7.6 - 7.7			10.6 - 10.7			13.6 - 13.7		
1.7 - 1.8	0		4.7 - 4.8	0		7.7 - 7.8			10.7 - 10.8			13.7 - 13.8		
1.8 - 1.9	6		4.8 - 4.9	0		7.8 - 7.9	1		10.8 - 10.9			13.8 - 13.9		
1.9 - 2.0	0		4.9 - 5.0	1		7.9 - 8.0	i		10.9 - 11.0			13.9 - 14.0		
2.0 - 2.1	0		5.0 - 5.1	0		8.0 - 8.1	0		11.0 - 11.1			14.0 - 14.1		
2.1 - 2.2	0		5.1 - 5.2	D		8.1 - 8.2	0		11.1 - 11.2			14.1 - 14.2	10	
2.2 - 2.3	0		5.2 - 5.3	0		8.2 - 8.3	[11.2 - 11.3			14.2 - 14.3		
2.3 - 2.4			5.3 - 5.4	0		8.3 - 8.4	0		11.3 - 11.4			14.3 - 14.4		
2.4 - 2.5	1		5.4 - 5.5	0		8.4 - 8.5	0		11.4 - 11.5			14.4 - 14.5		
2.5 - 2.6	1		5.5 - 5.6	0		8.5 - 8.6	0		11.5 - 11.6			14.5 - 14.6		
2.6 - 2.7	1		5.6 - 5.7	0		8.6 - 8.7	0		11.6 - 11.7			14.6 - 14.7		
2.7 - 2.8	1		5.7 - 5.8	0		8.7 - 8.8	D		11.7 - 11.8			14.7 - 14.8		
2.8 - 2.9	0		5.8 - 5.9	0		8.8 - 8.9	0		11.8 - 11.9			14.8 - 14.9		
2.9 - 3.0	0		5.9 - 6.0	õ		8.9 - 9.0	D		11.9 - 12.0			14.9 - 15.0		

Probing				Progress		Groundwater			
Depth	DIA	Technique	Crew	Date	Depth Cased	Depth Struck	Depth on Completion	Remarks on Groundwater	

Remarks

Logged by

Note

Manc

All liner dimensions are in metres

DYNAMIC SAMPLING UK LTD

DYNAMIC PROBE RECORD

Project: A112259.

LYBERTY STEET NEWPORT

Probehole no. 14

Date: 9.4.19

Client: WY. G

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Probing	-			Progress		Groundwater			
Depth	DIA	Technique	Crew	Date	Depth Cased	Depth Struck	Depth on Completion	Remarks on Groundwater	
								~	

Remarks

Logged by

monte

Note All liner dimensions are in metres

DYNAMIC SAMPLING UK LTD

DYNAMIC PROBE RECORD

Project: LYBERTY STEEL. NEWPORT AU 2259 Client: WY. G

Probehole no. / 4

Date: 9.4.19

DEPTH (m)	BLOW COUNT	Torque Reading	DEPTH (m)	BLOW	Torque Reading	DEPTH (m)	BLOW COUNT	Torque Reading	DEPTH (m)	BLOW	Torque Reading	DEPTH (m)	BLOW	Torque Reading
0.0 - 0.1	1		3.0 - 3.1	1		6.0 - 6.1	(9.0 - 9.1	1		12.0 - 12.1		
0.1 - 0.2	1		3.1 - 3.2	(6.1 - 6.2	2		9.1 - 9.2	2		12.1 - 12.2		
0.2 - 0.3	2		3.2 - 3.3	(6.2 - 6.3	2		9.2 - 9.3	3		12.2 - 12.3		
0.3 - 0.4	1		3.3 - 3.4	Ó		6.3 - 6.4	3		9.3 - 9.4	2		12.3 - 12.4		
0.4 - 0.5	V		3.4 - 3.5	0		6.4 - 6.5	i		9.4 - 9.5	2		12.4 - 12.5		
0.5 - 0.6	3		3.5 - 3.6	0		6.5 - 6.6	1		9.5 - 9.6	3		12.5 - 12.6		
0.6 - 0.7	2		3.6 - 3.7	0		6.6 - 6.7	(9.6 - 9.7	3		12.6 - 12.7		
0.7 - 0.8	2		3.7 - 3.8	0		6.7 - 6.8	6		9.7 - 9.8	4		12.7 - 12.8		_
0.8 - 0.9	2		3.8 - 3.9	0		6.8 - 6.9	6		9.8 - 9.9	4		12.8 - 12.9		
0.9 - 1.0	1		3.9 - 4.0	0		6.9 - 7.0	0		9.9 - 10.0	4		12.9 - 13.0		
1.0 - 1.1	6		4.0 - 4.1	0		7.0 - 7.1	1		10.0 - 10.1	5		13.0 - 13.1		
1.1 - 1.2	0		4.1 - 4.2	0		7.1 - 7.2	1		10.1 - 10.2	5		13.1 - 13.2		
1.2 - 1.3	6		4.2 - 4.3	6		7.2 - 7.3	2		10.2 - 10.3	1		13.2 - 13.3		
1.3 - 1.4	0		4.3 - 4.4	0		7.3 - 7.4	2		10.3 - 10.4	2		13.3 - 13.4		
1.4 - 1.5	0		4.4 - 4.5	I		7.4 - 7.5	2		10.4 - 10.5	2		13.4 - 13.5		
1.5 - 1.6	0		4.5 - 4.6	1		7.5 - 7.6	3		10.5 - 10.6	2		13.5 - 13.6		
1.6 - 1.7	6		4.6 - 4.7	0	- 8 1	7.6 - 7.7	3		10.6 - 10.7	3		13.6 - 13.7		
1.7 - 1.8	6		4.7 - 4.8	6		7.7 - 7.8	2		10.7 - 10.8	3		13.7 - 13.8		
1.8 - 1.9	(4.8 - 4.9	0		7.8 - 7.9	7		10.8 - 10.9	3		13.8 - 13.9		
1.9 - 2.0	(4.9 - 5.0	0		7.9 - 8.0	2		10.9 - 11.0	6		13.9 - 14.0		
2.0 - 2.1	(5.0 - 5.1	0		8.0 - 8.1	7		11.0 - 11.1	5		14.0 - 14.1		
2.1 - 2.2	1		5.1 - 5.2	D		8.1 - 8.2	i		11.1 - 11.2	5		14.1 - 14.2		
2.2 - 2.3	0		5.2 - 5.3	,		8.2 - 8.3	2		11.2 - 11.3	6		14.2 - 14.3		
2.3 - 2.4	0		5.3 - 5.4	(8.3 - 8.4	(11.3 - 11.4	6		14.3 - 14.4		
2.4 - 2.5	6		5.4 - 5.5	1		8.4 - 8.5	0		11.4 - 11.5	7		14.4 - 14.5		
2.5 - 2.6	0		5.5 - 5.6	(8.5 - 8.6	0		11.5 - 11.6	4		14.5 - 14.6		
2.6 - 2.7	0		5.6 - 5.7	1		8.6 - 8.7	D		11.6 - 11.7	6		14.6 - 14.7		
2.7 - 2.8	0		5.7 - 5.8	D		8.7 - 8.8	0		11.7 - 11.8	6		14.7 - 14.8		
2.8 - 2.9	0		5.8 - 5.9	0		8.8 - 8.9	0		11.8 - 11.9	7		14.8 - 14.9		
2.9 - 3.0	0		5.9 - 6.0	0		8.9 - 9.0	0		11.9 - 12.0	7		14.9 - 15.0		

Probing				Progress		Groundwater			
Depth	DIA	Technique	Crew	rew Date	Depth Cased	Depth Struck	Depth on Completion	Remarks on Groundwater	

Remarks

Logged by

Mank

All liner dimensions are in metres



Plate 1 Working shot of 16-tonne excavator and hydraulic pecker. South facing.



Plate 2 Location of 'railway site'. North facing.





Plate 3 Working shot of dynamic probe drilling taking place. South facing.



Plate 4 East facing section of TP008.





Plate 5 Extent of excavation TP006. West facing.



Plate 6 North facing section of TP007. 2m scale.





Plate 7 West facing section of TP013. 2m scale.



Plate 8 South facing section of TP011.



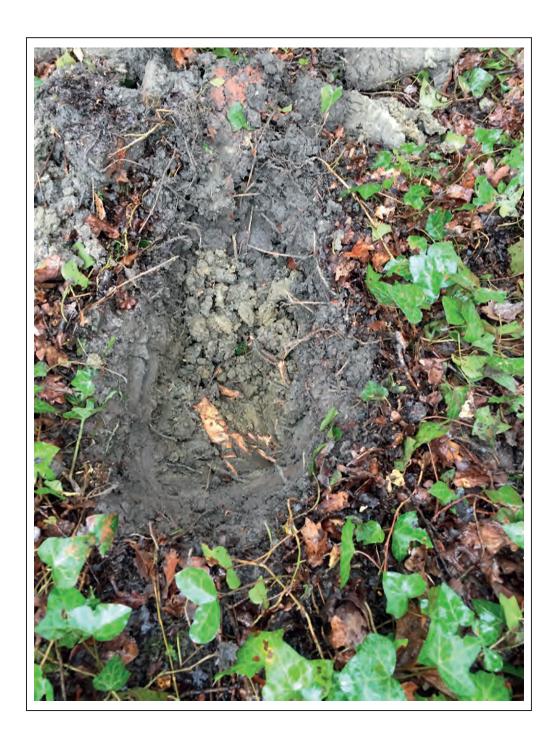


Plate 9 Extent of excavation TP017. North-west facing.





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FOR AN ARCHAEOLOGICAL **WATCHING BRIEF**

WRITTEN SCHEME OF INVESTIGATION

During

GROUND INVESTIGATION WORKS

For the

STEPHENSON STREET FLOOD RISK MANAGEMENT PROJECT

Prepared for:

Natural Resources Wales

Project No: 2705

March 2019



Archaeology Wales Limited The Reading Room, Town Hall, Great Oak Street Llanidloes, Powys SY18 6BN Tel: +44 (0) 1686 440371 Email: admin@arch-wales.co.uk

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- Figure 1. Location of Trial Pits
- Figure 2. Location of Trial Pits at Corporation Road Site
- Figure 3. Location of Trial Pits at Railway Site

Summary

This Written Scheme of Investigation (WSI) details a programme of archaeological watching brief to be undertaken by Archaeology Wales at the request of Natural Resources Wales (NRW).

The archaeological mitigation will consist of a watching brief which will be undertaken during ground intrusive works associated with the ground investigation (GI) trial-pitting as a part of the Stephenson Street Flood Risk Management Project. The exact proposed location of the individual trial pits can be found in Section 2 below but works are centred approximately at NGR ST 33296 85279 on the east bank of the River Usk at Corporation Road, Newport.

The objective of the watching brief is to safeguard the known and potential archaeological resource through observation and recording during the course of the intrusive ground works associated with the development scheme

All work will be undertaken in accordance with the standards and guidelines of the Chartered Institute for Archaeologists (2014).

1. Introduction and planning background

This WSI details the methodology for a programme of archaeological mitigation to be undertaken in association with associated with the ground investigation (GI) test-pitting as a part of the Stephenson Street Flood Risk Management Project on the east bank of the River Usk at Corporation Road, Newport.

This WSI has been prepared by Charley James-Martin, Project Manager, Archaeology Wales Ltd (henceforth - AW).

The methodology set out in this WSI has been agreed with GGAT-APM in its capacity as archaeological advisors to Newport City Council. GGAT-APM has recommended that a watching brief of the development area is undertaken during intrusive ground works, to mitigate the impact of the proposed test-pitting on the archaeological resource.

All work will be undertaken to the standards and guidance set by the Chartered Institute for Archaeologists (2014). AW is a Registered Organisation with the CIfA.

2. Site Description

The site is located on the east bank of the River Usk around Corporation Road, Newport. The trial pitting will take place in two locations, one referred to as Corporation Road Site and the other, the Railway Site (Figure 1-3). The trial pits at the Corporation Road Site are expected to be excavated by machine and due to access issues the Railway Site pits will be hand excavated.

Proposed location of the trial pits

Trial Hole Number	Eastings	Northings	Scheduled Depth (m)			
Corporation Road Site						
TP006	332894	185428	3.0			
TP007	332941	185413	3.0			
TP008	332990	185358	4.0			
TP009	332978	185388	4.0			
TP010	333033	185374	3.0			
TP011	333100	185413	4.0			
TP012	333150	185402	3.0			
TP013	333141	185428	3.0			
Railway Site						
TP014	333563	185059	1.2			
TP015	333584	185057	1.2			
TP016	333610	185058	1.2			

The Site comprised of floodplain and bounded to the west and south by the River Usk and to the north and east by industrial areas. Vehicular access to the site in currently gained from the east, through Stephenson Street.

The geology of the area forms part of the Mercia Mudstone Group Formation composed of a mix of mudstone, siltstones, sandstones and halite. The superficial deposits are characterised as Tidal Flat Deposits composed of clay and silt (BGS 2019).

3. Archaeological background

The development area does not lie in close proximity to any Scheduled Monument. A prominent Grade I Listed Building is located at the northern extent of the ground investigation area. This is the site of the Transporter Bridge (LB17414, LB17415 and LB3076). The bridge was built in 1906 to allow high masted ships passage to Newport's wharves. This bridge is the finer of two functioning transporter bridges in the UK and indeed only a few examples survive in the world.

Little is known about the prehistoric period at Newport. Most evidence comes from individual finds spots. The Roman period is dominated by the fort at Caerleon located some 4.8km to the North of Newport. Roman finds have been found in Newport however no structural evidence has been noted to date. Newport boast impressive medieval remains and it is during this time that the area develops as a port.

In 2002 the well-preserved remains of a large medieval ship (02339g/307059), provisionally dated by dendrochronology to 1465-1466, were discovered 115m to the south of Town Pill some 1.8km upstream of the ground investigation area (Howell and Dunning 2004). Its importance as a maritime trading centre continues into the post-medieval period.

4. Objectives

This WSI sets out a program of works to ensure that the watching brief will meet the standard required by The Chartered Institute for Archaeologist's *Standard and Guidance for Archaeological Watching Briefs* (2014).

The objective of the watching brief will be:

- to allow the investigation and recording of any archaeological features that are uncovered during the proposed groundworks within the application area.
- to provide the opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief are not sufficient to support the treatment to a satisfactory or proper standard.

A written report will be compiled following the fieldwork. Sufficient desk-top research will be undertaken to ensure that the results of this work are properly understood, interpreted and reported.

The report will include a comprehensive assessment of the historic context within which the archaeological evidence rests and will aim to highlight any relevant research issues within regional, national and, if relevant, international research frameworks.

5. Timetable of works

5.1. Fieldwork

The watching brief will be undertaken during ground works associated with the proposed ground investigation. Archaeology Wales will update GGAT-APM with the exact date.

5.2. Report delivery

The report will be submitted to the client and to GGAT-APM within three months of the completion of the fieldwork. A copy of the report will also be sent to the regional HER.

6. Fieldwork

6.1. Detail

The work will be undertaken to meet the standard required by The Chartered Institute for Archaeologist's Standard and Guidance for Watching Briefs (2014).

The site archaeologist undertaking the watching brief will be afforded the required access by the main contractor in order to observe and where necessary to record any archaeological remains revealed. Groundwork will not be undertaken without the presence of the site archaeologist. The site archaeologist will record finds and less significant archaeological deposits and features without significant delay to the work program.

Where significant or complex archaeological deposits or features are encountered there will be a requirement for those areas to be fenced off and highlighted to all contractors employed on the site. Machines or contractors shall not enter this area until archaeological recording has been completed. If significant archaeological features are revealed during the work a meeting between the client, GGAT-APM and AW will be called at the earliest convenience.

If significant archaeological features are encountered contingency arrangements will be made. Contingency costs will be agreed in advance before any extension to the programme commences and will follow a site meeting between Archaeology Wales, the client and GGAT-APM.

6.2. Recording

Recording will be carried out using AW recording systems (pro-forma context sheets etc) using a continuous number sequence for all contexts.

Plans and sections will be drawn to a scale of 1:50, 1:20 and 1:10 as required and related to Ordnance Survey datum and published boundaries where appropriate.

All features identified will be tied in to the OS survey grid and fixed to local topographical boundaries.

Photographs will be taken in digital format with an appropriate scale, using a 12MP camera with photographs stored in Tiff format.

The archaeologist undertaking the watching brief will have access to the AW metal detector and be trained in its use.

6.3. Finds

The professional standards set in the Chartered Institute for Archaeologists' Standard and guidance for the collection, documentation, conservation and research of archaeological (2014) will form the basis of finds collection, processing and recording.

All manner of finds regardless of category and date will be retained.

Finds recovered that are regarded as Treasure under *The Treasure Act 1996* will be reported to HM Coroner for the local area.

Any finds which are considered to be in need of immediate conservation will be referred to a UKIC qualified conservator (normally Phil Parkes at Cardiff University).

6.4. Environmental sampling strategy

Deposits with a significant potential for the preservation of palaeoenvironmental material will be sampled, by means of the most appropriate method (bulk, column etc). Where

sampling will provide a significant contribution to the understanding of the site AW will draw up a site-specific sampling strategy alongside a specialist environmental archaeologist. All environmental sampling and recording and will follow English Heritage's *Guidelines for Environmental Archaeology* (2nd Edition 2011).

6.5. Human remains

In the event that human remains are encountered, their nature and extent will be established and the coroner informed. All human remains will be left *in situ* and protected during backfilling. Where preservation *in situ* is not possible the human remains will be fully recorded and removed under conditions that comply with all current legislation and include acquisition of licenses and provision for reburial following all analytical work. Human remains will be excavated in accordance with the Chartered Institute for Archaeologist's *Excavation and Post-Excavation Treatment of Cremated and Inhumed Human Remains: Technical Paper Number 13* (1993).

A meeting with GGAT-APM, and the client and AW will be called if the human remains uncovered are of such complexity or significance that the contingency arrangement (6.1 above) would not be of sufficient scope.

6.6. Specialist advisers

In the event of certain finds, features or sites being discovered, AW will seek specialist opinion and advice. A list of specialists is given in the table below although this list is not exhaustive.

Artefact type	Specialist
Flint	Kate Pitt (Archaeology Wales)
Animal bone	Richard Madgwick (Cardiff University)
CBM, heat affected clay, Daub etc.	Rachael Hall (APS)
Clay pipe	Charley James-Martin (Archaeology Wales)
Glass	Rowena Hart (Archaeology Wales)
Cremated and non-cremated human bone	Malin Holst (University of York)/Richard Madgwick (Cardiff University)
Metalwork	Kevin Leahy (University of Leicester)/ Quita Mold (Freelance)
Metal work and metallurgical residues	Dr Tim Young (GeoArch)
Neo/BA pottery	Dr Alex Gibson (Bradford University)

IA/Roman pottery	Jane Timby (Freelance)		
Roman Pottery	Rowena Hart (Archaeology Wales)/ Peter Webster (Freelance)		
Post Roman pottery	Stephen Clarke (Monmouthshire Archaeology)		
Charcoal (wood ID)	John Carrot (Freelance)		
Waterlogged wood	Nigel Nayling (University of Wales – Lampeter)		
Molluscs and pollen	Dr James Rackham		
Charred and waterlogged plant remains	Wendy Carruthers (Freelance)		

6.6.1. Specialist reports

Specialist finds and palaeoenvironmental reports will be written by AW specialists, or sub-contracted to external specialists when required.

7. Monitoring

GGAT-APM will be contacted approximately five days prior to the commencement of archaeological site works, and subsequently once the work is underway.

Any changes to the WSI that AW may wish to make after approval will be communicated to GGAT-APM for approval on behalf of Planning Authority.

8. Post-fieldwork programme

8.1. Archive assessment

8.1.1. Site archive

An ordered and integrated site archive will be prepared in accordance with: Management of Research Projects in the Historic Environment (MoRPHE) (Historic England 2006) upon completion of the project.

The site archive (including artefacts and samples) will be prepared in accordance with the National Monuments Record (Wales) agreed structure and deposited with an appropriate receiving organisation, in compliance with CIfA Guidelines (Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives', 2014). The legal landowners consent will be gained for deposition of finds. The project will adhere to the Welsh Archaeological Trust's joint Guidance for the Submission of Data to the Welsh Historic Environment Records (2018).

8.1.2. Analysis

Following a rapid review of the potential of the site archive, a programme of analysis and reporting will be undertaken. The report will adhere to the Welsh Archaeological Trust's joint Guidance for the Submission of Data to the Welsh Historic Environment Records (2018).

This will result in the following inclusions in the final report:

- A bilingual non-technical summary
- Location plan showing the area/s covered by the watching brief, all artefacts, structures and features found
- Plan and section drawings (if features are encountered) with ground level, ordnance datum and vertical and horizontal scales.
- Written description and interpretation of all deposits identified, including their character, function, potential dating and relationship to adjacent features. Specialist descriptions and illustrations of all artefacts and soil samples will be included as appropriate.
- An indication of the potential of archaeological deposits which have not been disturbed by the development
- A discussion of the local, regional and national context of the remains by means of reviewing published reports, unpublished reports, historical maps, documents from local archives and the regional HER as appropriate.
- A detailed archive list at the rear listing all contexts recorded, all samples finds and find types, drawings and photographs taken. This will include a statement of the intent to deposit, and location of deposition, of the archive.

8.2. Reports and archive deposition

8.2.1. Report to client

Copies of all reports associated with the watching brief, together with inclusion of supporting evidence in appendices as appropriate, including photographs and illustrations, will be submitted to the client and GGAT-APM upon completion.

8.2.2. Additional reports

After an appropriate period has elapsed, copies of all reports will be deposited with the relevant county Historical Environment Record, the National Monuments Record and, if appropriate, Cadw.

8.2.3. Summary reports for publication

Short archaeological reports will be submitted for publication in relevant journals; as a minimum, a report will be submitted to the annual publication of the regional CBA group or equivalent journal.

8.2.4. Notification of important remains

Where it is considered that remains have been revealed that may satisfy the criteria for statutory protection, AW will submit preliminary notification of the remains to Cadw.

8.2.5. Archive deposition

The final archive (site and research) will, whenever appropriate, be deposited with a suitable receiving institution, usually the relevant Local Authority museums service. Arrangements will be made with the receiving institution before work starts.

Although there may be a period during which client confidentiality will need to be maintained, copies of all reports and the final archive will be deposited no later than six months after completion of the work.

Copies of all reports, the digital archive and an archive index will be deposited with the *National Monuments Record*, RCAHMW, Aberystwyth.

Wherever the archive is deposited, this information will be relayed to the HER. A summary of the contents of the archive will be supplied to GGAT-HER.

8.2.6. Finds deposition

The finds, including artefacts and ecofacts, excepting those which may be subject to the Treasure Act, will be deposited with the same institution, subject to the agreement of the legal land owners.

9. Staff

The project will be managed by Irene Garcia Rovira (AW Project Manager) and the fieldwork undertaken by Archaeology Wales Staff. Any alteration to staffing before or during the work will be brought to the attention of GGAT-APM and the client.

Additional Considerations

10. Health and Safety

10.1. Risk assessment

Prior to the commencement of work AW will carry out and produce a formal Health and Safety Risk Assessment in accordance with *The Management of Health and Safety Regulations* 1992. A copy of the risk assessment will be kept on site and be available for inspection on request. A copy will be sent to the client (or their agent as necessary) for their information. All members of AW staff will adhere to the content of this document.

10.2. Other guidelines

AW will adhere to best practice with regard to Health and Safety in Archaeology as set out in the FAME (Federation of Archaeological Managers and Employers) health and safety manual *Health and Safety in Field Archaeology (2002)*.

11. Community Engagement and Outreach

Wherever possible, AW will ensure suitable measures are in place to inform the local community and any interested parties of the results of the site investigation work. This may occur during the site investigation work or following completion of the work. The form of any potential outreach activities may include lectures and talks to local groups, interested parties and persons, information boards, flyers and other forms of communication (social media and websites), and press releases to local and national media.

The form of any outreach will respect client confidentiality or contractual agreements. As a rule, outreach will be proportional to the size of the project.

Where outreach activities have a cost implication these will need to be negotiated in advance and in accordance with the nature of the desired response and learning outcomes.

12. Insurance

AW is fully insured for this type of work and holds Insurance with Aviva Insurance Ltd and Hiscox Insurance Company Limited through Towergate Insurance. Full details of these and other relevant policies can be supplied on request.

13. Quality Control

13.1. Professional standards

AW works to the standards and guidance provided by the *Chartered Institute for Archaeologists*. AW fully recognise and endorse the Chartered Institute for Archaeologists' *Code of Conduct, Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology* and the *Standard and Guidance for archaeological watching briefs* currently in force. All employees of AW, whether corporate members of the Chartered Institute for Archaeologists or not, are expected to adhere to these Codes and Standards during their employment.

13.2. Project tracking

The designated AW manager will monitor all projects in order to ensure that agreed targets are met without reduction in quality of service.

14. Arbitration

Disputes or differences arising in relation to this work shall be referred for a decision in accordance with the Rules of the Chartered Institute of Arbitrators' *Arbitration Scheme for the Institute for Archaeologists* applying at the date of the agreement.

15. References

- Chartered Institute for Archaeologists, 2014. Standards and guidance for the collection, compilation, transfer and deposition of archaeological archives.
- Chartered Institute for Archaeologists, 2014. Standards and guidance for the collection, documentation, conservation and research of archaeological materials.
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