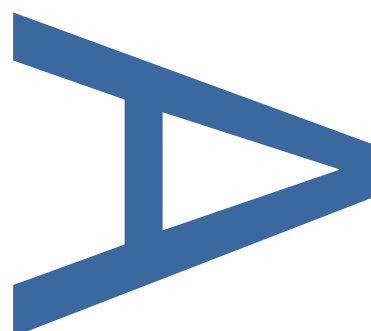
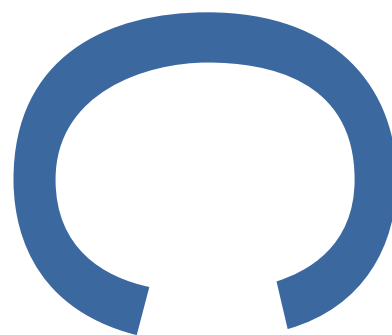


**TEMPLE CIRCUS GYRATORY,
BRISTOL**



**AN ARCHAEOLOGICAL WATCHING
BRIEF; FINAL REPORT**



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ABSTRACT

Pre-Construct Archaeology was commissioned by Eurovia Contracting Ltd to undertake an archaeological watching brief at Temple Circus, Bristol. The investigations were required to investigate and record any archaeological remains revealed during the reconfiguring of the Temple Circus Gyrotory, which included new vehicle, pedestrian and cycling routes as well as new services.

A range of archaeological remains were observed across the study area. Most prominent was the 13th century Portwall which survived as a recognisable heritage asset to variable extents across the interventions. Where possible during the project, this was left in situ and engineered around. However, within Test Pit 6 a portion of the wall had to be removed to facilitate the installation of the District Heating Main along Redcliffe Mead Lane. In addition to the Portwall, other medieval, 16th century and post-medieval archaeological remains were observed during the project.

1 INTRODUCTION

- 1.1 Archaeological investigations were undertaken by Pre-Construct Archaeology Ltd (PCA) at Temple Circus, Bristol (centred on Ordnance Survey National Grid Reference (NGR) ST 5943 7245: Figure 1) between July 2017 and May 2019. The investigations were commissioned by Eurovia Infrastructure Ltd. to inform upon, investigate and record the archaeological resource during the reconfiguring of the Temple Circus Gyrotory by Bristol City Council.
- 1.2 The development area was thought to contain the remains of the medieval Portwall, a principle heritage asset (HER Reference: 1042M). Given the limited knowledge of the archaeological resource within this area, and the potential for impact by the new development, the Local Planning Authority (LPA) required a programme of archaeological evaluation and watching brief to ascertain the extent of survival of heritage assets within the area of development and to monitor all intrusive groundworks likely to impact on these and record the any archaeological structures or deposits encountered.
- 1.3 The definition of an archaeological watching brief is ‘a programme of monitoring and investigation carried out during a non-archaeological activity within a specified area of land or development where construction operations may disturb or destroy archaeological remains’ (CIFA 2014a).
- 1.4 The archaeological investigations were carried out in accordance with Written Schemes of Investigation (WSI) prepared by CH2M (2017) and Pre-Construct Archaeology Ltd (2017/2019) in consultation with Peter Insole, archaeological advisor for Bristol City Council.
- 1.5 In addition, the archaeological watching brief conforms to the guidelines and standards laid down in the following documents:
- *Standard and Guidance for an Archaeological Watching Brief*, Chartered Institute for Archaeologists: Reading (CIFA 2014a);
 - *Code of Approved Conduct for the Regulation of Arrangements in Field Archaeology*, Chartered Institute for Archaeologists: Reading (CIFA

2014b);

- Standard and Guidance for the collection, documentation, conservation and research of archaeological materials, Chartered Institute for Archaeologists: Reading (CIFA 2014c);
- Management of Archaeological Research Projects in the Historic Environment (Morphe), Historic England: London (HE 2015);
- *Fieldwork Induction Manual: Operations Manual 1*, Pre-Construct Archaeology Limited, London (Taylor and Brown 2018);
- Fieldwork Operations Manual, Regional Variation Addendum; Warwick Office, Pre-Construct Archaeology Limited, Warwick (Webster 2018);
- Add any regional frameworks and/or guidelines here.

1.6 The general aims of these investigations were:

- determine the presence or absence of buried or upstanding archaeological remains within the proposed development site;
- allow the monitoring archaeologist to signal that potentially significant archaeology has been revealed before it is destroyed;
- provide the opportunity for an appropriate resource allocation to deal with the archaeology under the watching brief remit;
- determine the character, date, extent and distribution of any archaeological deposits revealed as well as their potential significance;
- determine levels of disturbance to any archaeological deposits from plough damage or from any other agricultural/industrial practices or later building activities;
- sufficiently investigate and record all deposits and features of potential archaeological interest within the areas to be disturbed during the current development;
- disseminate the results of the fieldwork through an appropriate level of recording.

- 1.7 This report presents and overview of the results of the various phases of archaeological watching brief. The site archive will be deposited at Bristol Museum and Art Gallery archives.

2 GEOLOGY AND TOPOGRAPHY

2.1 Geology

2.1.1 The bedrock of the site is mapped as Redcliffe Sandstone Member bedrock and is mostly overlain by tidal flat clay and silt. There are also river terrace deposits of sand and gravel to the south, indicative of the former flood plain of the River Avon. The River Avon is the nearest watercourse and is located at approximately 250m to the southeast of the site. The Floating Harbour is also located at a distance of 250m to the northeast, but this is an artificial watercourse (built between 1804 and 1809).

2.2 Topography

2.2.1 The site is located within the centre of Bristol City, situated between the Floating Harbour to the north and the River Avon to the south. The development area comprises commercial buildings and roads and the Temple Circus Gyrotory. The site is relatively flat, though there is a gentle downwards slope from the current ground level of the north most intervention which was 9.71m AOD to south where it was 9.09m AOD.

3 ARCHAEOLOGICAL BACKGROUND

3.1 Introduction

3.1.1 An archaeological desk-based assessment (Headland Archaeology 2016) was produced on the known historical and archaeological background of the site and immediate vicinity. It is not intended to repeat that information here and what follows is a brief overview of the document, for further information please refer to the original report.

3.2 Medieval

3.2.1 Bristol was an important port in the medieval period with imports of wine and woad for dyeing and exports of dyed woollen cloth, rope, sail cloth and leather. The River Frome was diverted into a new, more navigable channel in the 13th century, leading to the building of the quay which remained the main wharf until the 19th century. The suburb of Temple Fee was developed by the mid-12th century when it was owned by the Knights Templar. The suburb was enclosed (along with the adjacent area of Redcliffe) into the town in the mid-13th century when the Portwall was constructed. William Worcestre (in c.1480) described a wall 2.4m thick with a walk along the top and a large round tower on the bank of the Avon and between three and four bastions to the south between this tower (Tower Harratz) and Temple Gate. Many of the towers and gates had been leased by the town as early as 1350.

3.3 The 18th Century

3.3.1 A perspective view by Kip, dated 1717 provides an impression of the Portwall at the beginning of the 18th century and indicates that the area outside the Portwall remained undeveloped but gives little further detail. Roque's map of 1742 shows the line of Portwall Lane and Temple Gate and the growing settlement at Redcliffe, but continues to show the Temple Meads area as fields.

3.4 The late 18th and 19th Century

3.4.1 From the late 18th century Bristol developed considerably with several industries in the study area, as shown on Ashmead's map of 1828. Much of the impetus for increased development was provided by the arrival in Bristol of the newly formed Great Western Railway. Temple Meads was bought up in 1836 for the erection of a station and goods depot. The close proximity of the depot to the Floating Harbour (constructed between 1804 and 1809) also allowed for the construction of a barge dock known as Brunel's Dock, enabling goods to be directly transferred from rail to waterborne transport (and vice versa). At least some parts of the Portwall remained above ground until the 19th century, including a stretch from Temple Gate to Redcliffe Gate, although the wall had gradually been obscured by buildings from the 17th century and was in poor condition by the end of that century.

3.5 The 20th Century

3.5.1 There have been further changes to the study area in the 20th century. The area northwest of Temple Meads Station has been redeveloped with large office buildings, the road junction between Temple Gate and Redcliffe Way was modified into the current roundabout/gyratory system and several new office and hotel buildings have been constructed in the west and south of the study area.

4 METHODOLOGY

4.1 Excavation and Sampling

4.1.1 The Written Scheme of Investigations for the archaeological investigations proposed that the archaeologist present would monitor all intrusive works associated with the new redevelopment and record all deposits and structures encountered across various areas of the site where more significant groundwork coincided with higher archaeological potential (see Figure 2).

4.1.2 Following the initial evaluation of the site in July 2017, the archaeological investigations comprised phased monitoring of exploratory and development groundworks as follows:

- Area 1; The Friary (November 2017)
- Area 2; Redcliffe Way (May 2018)
- Area 3; Portwall Lane East, Pipe Trench (August 2018)
- Area 4; Portwall Lane East, Test Pits (November 2018, March 2019)
- Area 5; Redcliffe Mead Lane (May 2019)

4.1.3 Deposits considered not to be significant were removed by a 360⁰ tracked mechanical excavator fitted with a toothless ditching bucket, under close archaeological supervision. The intrusive works were subsequently cleaned by hand and all possible features were inspected for their potential. Selected deposits were excavated by hand in an attempt to retrieve artefactual material and palaeoenvironmental samples. Overburden deposits were examined

4.1.4 Field excavation techniques and recording methods are detailed in the PCA Fieldwork Induction Manual (Operations Manual I; Taylor & Brown 2018) and PCA Fieldwork Operations Manual Regional Variation Addendum; Warwick (Webster 2018).

4.2 Recording Methodology

4.2.1 The limits of excavations, heights above Ordnance Datum (m OD) and the locations of archaeological features and interventions were recorded by the onsite surveyor using a GPS rover unit with RTK differential correction, giving

- three-dimensional accuracy of 20mm or better. Each point was recorded in relation to the OSGB36 geod model with the details recorded on all hand drawn plans and sections.
- 4.2.2 All areas were illustrated by hand and drawn in relation to a feature specific geo-referenced baseline and drawn at an appropriate scale on polyester based drafting film and labelled in relation to a site-specific drawing register.
- 4.2.3 Hand drawn sections were drawn at an appropriate scale, primarily 1:10. Likewise, plans of archaeological features were drawn at a suitable scale to record them in detail. Where appropriate, a larger site plan was produced at a scale between 1:100 and 1:1,250 to show the location of monitored works, detailed plans and sections and any other information appropriate. This plan is accurately related to the National Grid. All plans and sections were levelled in respect to AOD, drawn on polyester based drafting film and clearly labelled.
- 4.2.4 Deposits or the removal of deposits judged by the excavating archaeologist to constitute individual events were each assigned a unique record number (often referred to within British archaeology as 'context numbers') and recorded on individual pre-printed forms (Taylor and Brown 2018; Webster 2018). Context sheets were primarily filled in by the archaeologist who excavated the feature/deposit. All deposits recorded during the archaeological watching brief are listed in Appendix 2.
- 4.2.5 All deposits were recorded with sufficient data to allow for a full characterisation of the context and its relationships to be made and allow for future studies to query and compare the dataset with confidence.
- 4.2.6 High-resolution digital photographs were taken at all stages of the archaeological watching brief process using a Canon EOS 1300D digital SLR camera with a 18.0-megapixel resolution. Digital Photographs were taken of all deposits and all images labelled appropriately and cross-referenced in relation to a site-specific photography register and regarded as part of the primary archive.
- 4.2.7 Within the final area of investigation, Area 5, following the completion of all

recording a section of the wall was removed to facilitate the construction of services. A section of the Portwall totalling 1m in width by 1.02m in height (from highest surviving level of the wall) was removed in order to provide sufficient working space for the replacement manhole and services.

5 ARCHAEOLOGICAL SEQUENCE

The following section reports on the nature of the archaeological evidence recorded during the project, and is presented by the temporal phase in which the work undertaken.

5.1 Evaluation

- 5.1.1 The initial archaeological evaluation took place between 3rd July and 15th August 2017 to inform the design choices of the project, the results forming the basis on which the follow-up phases of archaeological monitoring were based. A total of 7 archaeological trial trenches were originally planned, though one was not excavated.
- 5.1.2 The evaluation found that the survival of archaeological horizons had been heavily impacted by post-medieval development. However, the medieval Portwall **(1037) (1023)** survived at varied depths within two of the trenches; 8.16m AOD (highest level) in Trench 5 and at 7.54m AOD (highest level) in Trench 7. Furthermore, there was evidence of redeposited clay **(1011) (1022) (1033) (1034)** used to consolidate the original foundational structure of the Portwall. Additionally, the Portwall was observed within Trench 6 but could not be investigated fully in this location due to the presence of services running along the centre of the trench.
- 5.1.3 The evaluation also revealed evidence for 17th century activity within Trenches 5 and 7, with the majority of this related to the Portwall. Within Trench 5 it was noted that an additional wall **(1035)** was built over the top of the Portwall, likely related to refortification during the English Civil War. Trench 7 also showed evidence of robbing of the stone from the Portwall as well as an associated layer of demolition rubble and mortar **(1025)**.
- 5.1.4 It was also established within Trenches 6, 7, 10 and 11 that there was a significant period of construction and establishment of street layouts, as well as areas being raised and levelled, during the 18th-19th century. During the later 20th continued construction and development of the area included numerous phases of road surfacing and services seen throughout the site.

5.2 Area 1; The Friary

- 5.2.1 The earliest observed remains within this location were the top three courses of a later wall above the medieval Portwall **(1108)** (Figure 4), interpreted as being associated with the possible 17th century Civil War rebuild (PCA 2017). This was identified by the large Pennant Sandstone blocks within a sandy yellowish mortar and was observed 7.70m AOD and had a north to south alignment. This was unaffected by the modern development impact, which was 0.27m above this level (Figure 4). Abutting this structure was a deposit of reddish brown silty clay **(1105)**. This deposit could not be fully investigated due to it being at a depth unsafe to work in, but may have represented a redeposited natural clay associated with the robbing and/or rebuilding of the medieval Portwall.
- 5.2.2 Above the 17th century structure **(1108)** was a 19th century wall **(1107)**, constructed utilising the 17th century wall below as a footing (Figures 3 & 4). The wall was comprised of reused Pennant Sandstone and red bricks set in a light lime and sand mortar and was observed at a depth of 8.90m OD. The 19th century wall **(1107)** followed the alignment of its 17th century precursor, indicating that the alignment of the medieval Portwall had been maintained as a property boundary into the 19th century. As part of the development work to facilitate the installation of a service, this wall was removed to the lowest course of stone, with the last course being left *in situ* to protect the earlier structure **(1108)**.
- 5.2.3 East of the 19th century Portwall rebuild **(1107)** was another post-medieval wall **(1112)** (Figures 3 & 4). This followed the same alignment and had similar characteristics as to a wall recorded during earlier investigations (Wessex Archaeology 2015) and is interpreted as forming part of the same structure. As with wall **(1107)**, the wall was comprised of reused Pennant Sandstone, however the bonding material consisted of a harder cement suggesting this was a later build. Functionally the wall served the same purpose as property division.
- 5.2.4 Overlying and abutting the 19th century walls **(1107)** and **(1112)** were two layers of modern made ground **(1104)** and **(1111)**. These layers were

identified by the inclusions of frogged red brick, iron rebar and fragments of concrete. These layers appeared to form part of a site wide deposition during the 20th century to raise the ground level for the overlying road surface.

- 5.2.5 The modern 20th century layers **(1104)** & **(1111)** were cut by **[1110]** for a modern manhole and drain **(1109)**. The drain was constructed using deeply frogged red bricks bonded with a hard cement. The cut **[1110]** for the drain also impacted the 19th century wall **(1107)**, truncating it along the west facing side of the wall. This helped inform the design decision to remove part of the wall **(1107)** to allow the installation of the services.
- 5.2.6 Above wall **(1107)** and unaffected by the truncation **[1110]** of the drain **(1109)** was a modern dump deposit of degraded tarmac **(1106)** – this, along with a dump of modern crushed concrete **(1103)** within the modern 20th century layer **(1104)**, suggested an episode of dumping in the area. All the modern deposits were sealed with a series of gravel **(1102)** **(1101)** beneath the modern road surface **(1100)** (Figure 4).

5.3 Area 2; Redcliffe Way

- 5.3.1 Test Pit 2 was located on Redcliffe Way, part of the Bristol Temple Circus Gyrotory, and formed part of the continued work in the area. It was aligned northeast to southwest and a ground level of 9.16m AOD in the northeast and a 9.19m AOD in the southwest. No geological deposits were encountered within this test pit.
- 5.3.2 The earliest stratigraphic remains found was a section of the medieval Portwall **(1117)**. This was recorded at a depth of 7.94m AOD and was comprised of poorly sorted small to large sandstone blocks set in a soft orangish sandy mortar. It was observed to have a width 1.16m and aligned northeast to southwest. It is likely that this section of wall represented the core of the mid-13th century medieval Portwall and it was consistent with description seen in previous work (PCA 2017).
- 5.3.3 Abutting the medieval Portwall **(1117)** was layer of clay **(1119)** seen at 7.53m AOD. This was associated with the construction and stabilisation of the Portwall and had inclusions such as fragments of masonry suggesting it to be

a medieval layer.

- 5.3.4 Overlaying the Portwall (1117) was a layer of dark brown sandy silt (1118). This was 0.2m thick and had frequent masonry fragments as well as charcoal flecks. The layer (1118) was likely to be associated with the robbing of the higher levels of the Portwall (1117), explaining the absence of the larger hewn stone blocks seen in other surviving examples of the Portwall (*Ibid.*), leaving only the core fill remaining (1117).
- 5.3.5 Sealing the dark brown sandy silt layer (1118) was a 19th century wall (1116), using Portwall (1117) as a footing. The wall (1116) was comprised of red bricks in combination with roughly hewn reused sandstone blocks of varying sizes. The wall (1116) was encountered at 8.22m AOD and was 1.06m wide, following the alignment of Portwall (1117) and again indicating the alignment of the Portwall was used as a property boundary in this area of the site into the 19th century.
- 5.3.6 Towards the southern end of Test Pit 2 was a layer of clay (1120) observed at 8.11m AOD. This had inclusions of modern concrete and CBM. Sealing layer (1120) was a layer of hardcore set within a sandy silt matrix (1115) seen at 8.42m AOD.
- 5.3.7 Cut into layer (1115) towards the eastern end of the trench was a modern drainpipe set into a concrete structure (1122) seen at 8.41m AOD. Running across the trench from northeast to southwest and over the drain (1122) was a concrete and red brick base (1121) for a fibre optic cable seen at 8.68m AOD.
- 5.3.8 Sealing the modern structures (1121) and (1122) was a layer of modern gravel (1114) seen at 8.57m AOD. The entire test pit was sealed by paving stones and tarmac (1113) forming the current ground level of Bristol Temple Circus at 9.16m AOD.

5.4 Area 3; Portwall Lane East, Pipe Trench

- 5.4.1 The pipe trench was located on Portwall Lane East and formed part of the

continued work in the area. It was aligned northeast to southwest. The ground level was 8.89m OD towards the northeast and 8.56m OD at the southwest.

- 5.4.2 The earliest stratigraphic remains found was the 13th century medieval Portwall, recorded in this location as **(1129)** (Plate 1). This was encountered at a depth of 7.49m OD and comprised of large unfinished sandstone blocks set into an orangish soft sandy mortar. While the full width and height of the wall were not observable, the composition of the wall was consistent with the core of the Portwall previously observed in Test Pit 2 as **(1117)** (see paragraph 5.3.2 above). The wall had been heavily impacted by 20th century activity, most notably foundation construction works in the area, with the outer face of the wall either destroyed or robbed away leaving only the sandstone core described above.
- 5.4.3 Abutting the Portwall **(1129)** at the base of the trench was a layer of clay **(1134)**. This layer had inclusions of charcoal and sandstone fragments suggesting it was likely to be related to the construction and stabilisation of Portwall **(1129)**.
- 5.4.4 Directly above the Portwall **(1129)** was a later rebuild **(1133)** (Plate 1). This was recorded at 8.24m OD and was only observed towards the north-eastern end of the trench. It was comprised of re-used sandstone blocks set into a hard clinker-based mortar. The composition of the wall was consistent with other 19th century walls observed in the area which also used the original Portwall as a footing. The consistent alignment of this wall represented further proof of the continued use of the Portwall as a boundary into the 19th century.
- 5.4.5 Additionally, a further 19th century wall **(1135)** was observed at the western end of the pipe trench. This had an alignment of north to south and was observed at a depth of 8.26m OD. It was comprised of sandstone set into a hard, light yellowish, clinker-based mortar with a render of mortar on the eastern face. Its relationship to the Portwall **(1129)** and the rebuild **(1133)** were unseen in the area of excavation, however the mortar and inclusions evident were very similar to the 19th century rebuild **(1133)**, suggesting continued 19th century development in the area.

5.4.6 Abutting the Portwall (1129) and the rebuild (1133) was a layer of post-medieval made ground (1131). This was comprised of a dark sandy silt. It was observed throughout the trench at a depth of 8.79m OD to the northeast and 8.48m OD southwest. Set within the layer of silt was a structure enclosing a 19th century separator tank (1130). The made ground layer (1131) and tank (1130) were sealed by a 20th century cobbled surface (1125).

5.4.7 The cobbled surface (1125) and the 20th century deposits (1131) and (1130) were sealed by modern gravel (1124) and the current asphalt road surface (1123).

5.5 Area 4; Portwall Lane East, Test Pits

5.5.1 **Test Pit 4** was located on Portwall Lane East and was aligned north to south. The ground level was 8.94m OD towards the north and 8.80m OD towards the south.

5.5.2 The earliest stratigraphic remains recorded was a section of the 13th century medieval Portwall (1142). This was encountered at a depth of 8.03m OD and was comprised of large unfinished sandstone blocks set into a reddish soft sandy mortar. While the full width and depth of the wall were not observable, the composition of the wall was the same as that observed in Test Pit 2 and in Pipe Trench 3 (see above). The wall had been heavily impacted by a modern pipe trench [1141] and a modern service trench [1139]. The impact of the modern services described above on the structure of the wall had been significant in this location, and it was found to be in poorer condition than observed elsewhere in the area.

5.5.3 Abutting the Portwall (1142) was a layer of clay (1144) observed at a depth of 6.79m OD with inclusions of charcoal flecks and large blocks of sandstone. This layer is likely to be associated with the construction and stabilisation of the Portwall (1142) as was also observed in Pipe Trench 3 where it was recorded as (1134) (see paragraph 5.4.3 above).

5.5.4 Overlying the layer of clay (1144) was a post-medieval or modern made ground (1143) observed at a depth of 7.14m OD. This layer was comprised

- of a silty sand and contained red sandstone, likely originating from the Portwall and deposited during the installation of services [1141] and [1139].
- 5.5.5 Above the made ground (1143) was a series of modern services consisting of a large water mains trench [1141] and a modern electrical service [1139]. These cut into and heavily impacted on the top of Portwall (1142). Within the service trenches were the services and their associated backfills (1138) and (1140). These were covered by a modern levelling layer comprised of type two gravel (1137) and sealed by the modern road surface (1136).
- 5.5.6 **Test Pit 5** was also located on Portwall Lane East and was also aligned north to south. Ground level was 9.04m OD to the north and 8.99m to the south.
- 5.5.7 The earliest stratigraphic remains found was a section of the 13th century medieval Portwall (1147) (Plate 2). This was encountered at a depth of 8.11m OD with an east to west alignment. It was comprised of large red sandstone blocks bonded by a reddish orange sandy silty mortar. In this location the wall appeared to have some of the large sandstone blocks associated with the outer face of the wall. The survival and structural integrity of the section of wall exposed within Test Pit 5 was good with apparently no impact from services (1146) and (1148).
- 5.5.8 Overlying the wall were two service trenches, both electrical cables set into concrete (1146) (1148). Both had an alignment running northwest to south east and were recorded at a depth of 8.25m OD. These services had not impacted on the structure of the wall in any way and were likely associated with the nearby traffic system. These were covered by modern made ground (1149) and sealed by the tarmac road surface (1145).
- 5.5.9 **Test Pit 6** was located on Portwall Lane East, and was aligned north to south, with the ground level recorded at 8.63m OD.
- 5.5.10 The earliest stratigraphic remains encountered during the excavation of the test pit was the medieval port wall (1154). This was observed at a highest level of 8.21m OD and was consistent with other examples seen across the area. It had been heavily truncated and impacted by a modern manhole (1152) and

its associated cut **[1153]** (see paragraph 5.5.12 below). The wall consisted of red sandstone set into a sandy soft mortar. Only a few of the large sandstone blocks associated with the outer face of the wall survived, leaving the core of the wall exposed.

5.5.11 Abutting the Portwall **(1154)** was a layer of clay **(1155)** observed at a depth of 7.19m OD with inclusions of charcoal flecks, sandy mortar and fragments of red sandstone. This layer is likely to be associated with the construction and stabilisation of the Portwall **(1154)** and was also observed in Test Pit 4 and Pipe Trench 3.

5.5.12 Cutting into the clay layer **(1155)** and truncating the Portwall **(1154)** was the construction cut **[1153]** for a modern manhole **(1152)**. This manhole had significantly impacted the Portwall (Plate 1) and the clay layer **(1155)**. The top of the manhole was above the current ground level and extended below the base of the test pit, suggesting further impact to the Portwall and any other archaeological structures and/or deposits at lower levels.

5.5.13 Abutting the manhole **(1152)** was a series of made ground and modern gravels **(1151)**, which were consistent with other modern layers seen across the site and associated with the levelling of the road above. These layers were sealed by the modern road surface **(1150)**.

5.6 Area 5; Redcliffe Mead Lane

5.6.1 The earliest stratigraphic layer recorded in this area was the natural clay **(1162)**, observed at a depth of 7.84m OD. It remained consistent with the natural deposition seen across the study area, and resembled the clay used as packing for the foundations of the Portwall. This was cut by a construction cut **[1161]** for a 19th century well **(1160)** (Plate 3; Figures 5 & 6) seen at 8.04m OD. The well **(1160)** was constructed of a combination of coarse grey stone and occasional red brick. It had an internal diameter of 1.40m and an external diameter of 2m with an internal depth of over 7.00m (limit of excavation). The full depth of the well could not be ascertained due to health and safety constraints. The well was just south of the expected line of the Portwall and

did not appear to have any association with it or its later rebuilds.

- 5.6.2 The well was abutted and sealed by a layer of 20th century made ground **(1159)** which was 0.45m thick and consisted of a friable dark greyish brown silty sand. Covering and sealing this layer of made ground was a layer of Type 2 gravel **(1158)** consistent with the levelling layer for the modern road surface **(1157)** seen across the site.
- 5.6.3 **The District Heating Main Trench** ran the length of Redcliffe Mead Lane and extended 12m east to west and had a length of 14.32m north to south and 1.70m in depth (Figure 7). The medieval Portwall **(1166)** (Plate 4 & 5; Figure 8) was seen at a depth of 8.08m OD with an exposed length of 2.60m east to west and 2.40m wide north to south. It had a thickness of 0.70m and was constructed out of medium and large sandstone varying from 420mm x 160mm x 140mm for the medium to 420mm x 220mm x 200mm for the large. The wall was bonded by a sandy red mortar consistent with examples of the Portwall seen across the study area.
- 5.6.4 Running parallel to the Portwall **(1166)** and 4.09m north of it was a further stone wall **(1167)** (Plate 6; Figures 7 & 8). This was comprised of a mixture of limestone and occasional sandstone (average size of 180mm x 320mm x 220mm) and was bonded together with a yellowish sandy mortar. Only a portion of the wall **(1167)** was observed within the trench. Here it had a width of 0.98m, a length of 3.20m and was 0.69m thick with five courses being observed. Within the fabric of the wall **(1167)** was a pottery sherd of Saintonge ware (BPT 156) with a mottled green glaze, dated 1250–1400 and imported from south-western France, providing a broad date range for the structure.
- 5.6.5 Abutting both walls **(1166)** & **(1167)** was a layer of clay **(1171)**, seen at a depth of 7.25m OD. The clay layer **(1171)** was firm and orangish brown and was packed against the side of the walls **(1166)** / **(1167)** and remained consistent with other packing layers used to consolidate and stabilise the Portwall in other areas.
- 5.6.6 Cutting into the clay layer **(1171)** and physically into the Portwall **(1166)** was a robber cut **[1168]** (Plate 8; Figure 8) seen at a height of 8.18m OD with a

total depth of 0.74m within the base of the cut **[1168]** being observed at 7.44m OD. The cut **[1168]** had a width of 0.95m cutting into the Portwall **(1166)**, resulting in 0.95m of the entire exposed northern side of the Portwall **(1166)** being removed to a depth of 7.44m OD. The primary fill **(1170)** of the robber cut **[1168]** consisted of a friable yellowish-brown sandy silt and contained glass and pottery sherds recovered dating the robbing activity to the 17th-18th. This was sealed by the secondary fill **(1169)** which consisted of a very dark friable silty clay with moderate inclusions of charcoal. This series of deposits within robber cut **[1168]** is likely associated with the robbing of the Portwall **(1166)**.

5.6.7 The above described deposits were all sealed by a layer **(1165)** of 20th century made ground. This was seen at a depth of 8.63m OD and had 20th century inclusions throughout which were consistent with other layers seen at a similar depth across the site. This was sealed by a layer of concrete **(1164)** which was covered by a layer of tarmac **(1163)**.

5.6.8 Following the main excavation of the north to south District Heating Main a secondary trench with an east to west alignment was installed. The earliest observed stratigraphic layer was **(1175)** which was a packing base layer for wall **(1176)** (Plate 7). Wall **(1176)** was a continuation of wall **(1167)** to the east, and had been removed by modern development to a depth of 7.18m OD, leaving only one course remaining *in situ*. The wall **(1176)** was abutted by a layer of clay **(1182)** consisting of a compacted dark brownish clay. This layer appeared to be contemporary with the medieval wall **(1176)** and may represent part of a medieval ground level. It was observed at the same height as the remains of the wall suggesting it was perhaps truncated from above previous groundwork.

5.6.9 The wall **(1176)** was abutted by a layer of clay **(1175)** to the south which was observed at a height of 7.35m OD. This layer **(1175)** was likely to be consistent with other layers of clay used to consolidate the foundation of the medieval walls **(1166)** **(1167)** **(1176)** **(1171)** in other areas.

5.6.10 There was also evidence of two 16th century probable robber cuts **[1178]** &

[1180] and the associated fills **(1179)** & **(1181)**. The western-most of the two cuts **[1178]** showed that a large section of the wall **(1176)** was robbed away in its entirety. In contrast to this the cut **[1180]** to the east was much smaller, and could demonstrate more opportunistic localised removal rather than organised dismantlement of the medieval wall.

5.6.11 Sealing the deposits of archaeological interest was a layer of 20th century made ground **(1174)** followed by concrete **(1173)**, in turn sealed by the modern tarmac road surface **(1174)**. This series of modern deposits is typical and consistent with other examples seen across the area.

6 FINDS ASSESSMENT

6.1 The Clay Tobacco Pipes

Chris Jarrett

Introduction

Clay tobacco pipes from a previous phase of archaeological work on the study area has been reported upon (Jarrett 2018) and the clay tobacco pipes from this intervention (Area 5) were derived from a single context. The clay tobacco pipes recovered from this archaeological work at Temple Circus, Bristol (BMSRG 17/115) was assessed to identify the clay tobacco pipes types present and their probable makers, but also to provide dating for the stratigraphy.

Methodology

The material was quantified by fragment count and the bowls were classified according to Jarrett (2013). Jackson and Price (1975) were referenced for information on the clay tobacco pipe makers and stamps, which incorporates the Bristol Museum corpus of clay tobacco pipe stamps. The clay tobacco pipes were catalogued according to the guidelines of Higgins (2017).

The Assemblage

The assemblage consists of 15 fragments (of which none are unstratified) of clay tobacco pipes with bowl types ranging in date to between c.1690-1740. The assemblage consists of three bowls and 12 stems.

Area 5

The primary fill (1170) of the robber cut [1168] only produced clay tobacco pipes. The most complete bowl consists of a BRST type 14 bowl, dated c. 1690–1710, although the example here is a slenderer variant and with a more rounded front and narrower heel. On the back of the bowl (facing the smoker) are stamped the incuse initials **IS** and the stamp has been recorded previously

(e.g. Jackson and Price 1974, 107, nos. 232–6). A number of possible Bristol pipe makers could have made this bowl, although Joseph Stanford I was working within Temple Parish in 1691 but by 1722 was living in the parish of St James (Jackson and Price 1974, 70). The second bowl consists of a damaged spurred BRST 14 shaped bowl, dated c. 1690–1740 and has no surviving makers initials. The third bowls exists only as the front of the bowl and on the right side is part of a circular medallion containing only the surviving family initial **M**. A notable number of 18th-century Bristol pipe makers could have made this bowl and at least four of these with the surname initial M made bowls with medallions on the right side of the bowl containing their initials (Jackson and Price 1974, 55–8, 102–3, nos 169–74 and 183-4). The twelve stems recovered from fill [1170] all have a medium sized bore and have tapering thin to medium thicknesses.

Conclusion

The small clay tobacco pipe assemblage from the BMSRG15/215 evaluation produced evidence for at least two pipe makers ranging over the period of c. 1690 to the mid 18th century from the evidence of the marks and their style. The pipes do have the potential to date the contexts they were recovered from. There are no recommendations for further work on the assemblage.

Context	Trench	No. of fragments	Bowl types (makers)	Spot date
1170	5	15	X1 BRST 13 (I S), x1 BRST 14, x1 unidentified (? M), x12 stems	1690–1740

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- Higgins, D. 2017, Guidelines for the Recovery and Processing of Clay Tobacco Pipes from Archaeological Projects. Unpublished document.
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6.2 Glass

Chris Jarrett

Introduction

The glass from an earlier phase of archaeological work has been previously reported upon (Jarrett 2017) and this report considers only that recovered from Trench 5. There is a total of 4 fragments of glass, representing 4 estimated number of vessels (ENV) and weighing 65g, all of which dates to the post-medieval period and probably more so the 18th century. All of the material was collected by hand and is in a fragmentary state, although all of the fragments could be assigned to at least a basic form. Glass was recovered from a single context.

Methodology

The glass was quantified by fragment count, estimated number of vessels and weight and was catalogued according to colour, vessel form, manufacturing technique and decoration and the information was entered into a database format.

The Assemblage

The glass was solely recovered from Redcliffe and it is associated with the primary fill (1170) of the robber cut [1168]. A catalogue of the material, which all appears to be derived from free-blown bottles, is described below:

Bottle: amethyst glass decorated with white marvered trails, 1 fragment, 1 ENV, 2g. Shoulder fragment decorated externally with marvered with a wide white trail swirl. Weathered surfaces. Late 17th-18th century.

Bottle: clear glass, 1 fragment, 1 ENV, 3g. Fairly flat base with a rounded profile heel. Weathered lustrous blue green surfaces which appears violet when held up to the light. 18th century

Bottle, cylindrical-section: clear glass, 1 fragment, 1 ENV, 4g. Cylindrical wall fragment and the weathering appears green-tinted when held up to the light. ?18th century

Mineral water bottle: dark olive-green glass, 1 fragment, 1 ENV, 57g. Deep narrow cylindrical neck and part of the rounded shoulder. Fresh breaks.

Continental. Late 17th-18th century and later

Conclusions

The assemblage is of some interest for containing fragments of 18th-century bottles, including a white trailed example, as well as the imported mineral water bottle from either a Belgian, French or a possible German spa town. The glass does have the potential to date the context it was found in. There are no recommendations for further work on the assemblage.

Context	Area	No	ENV	WT	Comments	Spot date
1170	25	4	4	65	Bottles, including a cylindrical example, a white trailed glass example and a ?	18th century

Bibliography

Jarrett, C. 2017, 'Glass', in F. Nevin, Temple Circus Gyratory, Bristol: An Archaeological Evaluation. Pre-Construct Archaeology Ltd unpublished report No. R13018.

6.3 Pottery

Chris Jarrett

Introduction

Pottery from a previous phase of archaeological work has been previously reported upon (Jarrett 2017) and this assessment considers finds recovered only from contexts [1167] and [1170]. The pottery was recovered by hand from the Temple Circus excavation, Bristol and was assessed to identify the principal pottery types present and to provide a chronology for the excavated contexts. The majority of the pottery types are dated to the post-medieval period and only two sherds are of a medieval date.

Methodology

The material was quantified by sherd count (SC), estimated number of vessels (ENV) and weight. The fabrics were identified by comparison to the Bristol Pottery Type Series (BPT) (e.g. Ponsford 1998, updated by Rod Burchill) and the data was entered into a database format.

The assemblage

The assemblage consists of 21 sherds/16 ENV/503g of medieval and post-medieval pottery, of which none was unstratified. The pottery ranges in date from the c. 1250–1400 and to the 18th century. The pottery is generally in a good condition with no sherds showing evidence of abrasion. The assemblage is in a fragmentary state and no vessels occur that are intact or with a complete profile, although diagnostic parts occurred that allowed for the identification of vessel shapes. Pottery was recovered from two contexts.

The assemblage can be chronologically broken down as follows:

Medieval: 2 sherds, 2 ENV, 64g

Post-medieval: 19 sherds, 14 ENV, 439g

Area 5

The primary fill (1170) of the robber cut [1168] produced the largest quantity of pottery from this phase of the archaeological work (20 sherds, 15 ENV, 496g). A single sherd of medieval pottery is recorded and consists of Bristol/Redcliffe ware (?BPT 74) and this is possibly in the form of a small rounded bowl and has a good quality yellow-green glaze. The rest of the pottery is of a post-medieval date and the pottery types are consistent with those produced in Bristol during the 18th-century. The most frequent-type of pottery consists of tin-glazed ware (BPT 99) and found as 10 sherds, 7 ENV, 148g and the forms are comprised of two plates and a rounded dish in blue and white ware, plain white fragments of a drainer with circular piercings and a rounded bowl. A medium round bowl survives as a base with a footring and has an external blue-coloured lead glaze and the internal decoration consists of a possible Chinese "precious thing", perhaps a scroll, outlined in black and with blue shading and a trellis infill. The vessel also has an internal stacking scar. External lead-glaze vessels usually date to the mid 17th century, although it is possible that this item is of an 18th-century date. A sherd of plain blue tin-glazed ware from an unidentified form is also present. Six sherds, 4 ENV, 98g are recorded in Bristol/Staffordshire slipware (BPT 100), dated in Bristol to c. 1650–1800. Forms recorded in this ware are comprised of a number of fragments from a porringer, rim sherds from two rounded dishes and a wall sherd from a cylindrical mug. Single sherds of other types of pottery are present as base sherds and these entail a slipware bowl or dish made in East Somerset Wanstrow (BPT 96), a rounded dish with sgraffito decoration made in North Devon gravel-free ware (BPT 108) and a tankard made in Bristol/Staffordshire-type mottled brown-glazed ware (BPT 211).

Associated with the medieval wall [1167] is a single sherd (7g) from a jug made in Saintonge ware (BPT 156) with a mottled green glaze, dated 1250–1400 and comes from south-western France. This ware represents the only imported pottery type recovered from this period of work.

Conclusion

The range of pottery types found on this excavation is typical for what would be expected for other ceramic assemblages recovered from Bristol excavations. The nature of the assemblage is entirely domestic in nature. Non-native imported pottery as a single sherd (4.8%) is below the expected amount of approximately 6% of (medieval and post-medieval) wares found on other city sites, although the small size of this assemblage should be considered for lower than the normal ratio of imported pottery. There are no recommendations for further work on the pottery.

Fabric types

?BPT 74	Bristol/Redclyffe ware, 1275–1400
BPT 96	Wanstrow ware, 1550–1800
BPT 99	Tin-glazed ware, 1650–1780
BPT 100	Yellow ware (Staffordshire-type) combed slipware, 1660-1870
BPT 108	North Devon (Barnstaple) gravel-free ware, 1625–1750
BPT 156	Saintonge ware, 1250–1400
BPT 208	Late medieval ?Bristol pale orange to grey fine sandy ware, c. 1350–1500
BPT 211	Bristol/Staffordshire-type mottled brown-glazed ware, 18th century

Forms represented in the fabrics

BPT 74	Bowl, small rounded
BPT 96	Bowl or dish
BPT 99	Bowl, rounded, includes a medium sized example, dish, rounded, drainer, plates, unidentified
BPT 100	Dish, rounded, porringer
BPT 108	Dish, rounded
BPT 112	Bowl, rounded, bowl or dish, jar, unidentified
BPT 156	Jug
BPT 211	Mug, cylindrical

Context	Area	SC	ENV	Wgt	Fabrics	Spot date
1167	5	1	1	7	156	1250–1400
1170	5	10	15	496	?74, 96, 99, 100, 108, 156, 211	17th century

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7 DISCUSSION & CONCLUSIONS

- 7.1 Despite there being significant impact from modern and post-medieval development within the study site, the medieval Portwall was identified in several of the areas of investigation, with varying levels of survival. The 13th century Portwall was observed to have a core constructed of rubble mixed with a yellowish sandy mortar, encased within an outer face of larger stones. A layer of clay 'packing' material was also recorded abutting the base of the Portwall across the area of investigation. This was laid down to consolidate its foundations, showing a consistent building method along the observed sections of the Portwall.
- 7.2 Within Test Pit 6 and the District Heating Main Trench, the remains of the Portwall were removed to a depth of 7.19m AOD and 7.25m AOD respectively to facilitate the new service infrastructure. In these locations it was agreed that a protective layer would be placed over any remaining courses of the Portwall prior to installation of the services.
- 7.3 A further medieval wall dated from the 13th-15th century was observed within the District Heating Main Trench at Redcliffe Mead Lane and its westward extension. This wall respected the alignment of the Portwall and was 4.09m north of it, suggesting a possible association with it, and demonstrating its importance in the wider context of town planning.
- 7.4 Following the medieval period of development, subsequent phases of both robbing of the Portwall and rebuilding were identified during the archaeological investigations. The most notable example of rebuilding was recorded within Evaluation Trench 5, where a section of masonry wall was identified with a distinct hard light grey mortar used as the bonding material, constructed on the original Portwall foundation. It is possible that the rebuild could be related to the documented refortification of Bristol during the English Civil War.
- 7.5 Several instances were recorded of portions of the wall being robbed out, with this process apparently occurring earlier than the Civil War period in the case of a robber cut observed in Evaluation Trench 7 (PCA 2017), and later as seen

in the District Heating Main Trench at Redcliffe Mead Lane, where robbing of the Portwall was recorded up until the 18th century.

- 7.3 A period of later post-medieval development was also noted during the archaeological investigations. Within Redcliffe Mead Lane a 19th century well was observed south of the alignment of the Portwall, suggesting residential or industrial land usage within the area. Further evidence of industry in the area was recorded within Pipe Trench 3 where a 19th century separator tank was recorded. Additionally, the section of original Portwall recorded within The Friary investigation area was directly overlain by a 19th century wall, demonstrating the continued use of Portwall in street planning and as a boundary well into the later post-medieval period.
- 7.4 Modern services were also noted within all the trenches, in some instances inhibiting access to the archaeological remains themselves. In some cases, the Portwall had been directly impacted by the services, particularly manholes and associated drainage such as those observed in The Friary area and within Test Pit 6.
- 7.5 The archaeological investigations associated with the reconfiguration of the Temple Circus Gyrotory therefore provided opportunities to record original sections of the Portwall, investigating the original construction techniques employed, as well as establishing its lasting impact through the English Civil War and into post-medieval industrialisation of the area, and its influence on the street pattern of the area from the mid-13th century to the present day. Impacts to the Portwall and associated features by the development were reduced through flexible design, and in the limited areas where removal of the fabric was required, the remaining sections were protected with a geotextile membrane and sand layer. These processes allowed the majority of the exposed fabric of the heritage asset to be preserved *in situ* at the completion of the project.

8 ACKNOWLEDGEMENTS

- 8.1 Pre-Construct Archaeology Ltd would like to thank Eurovia for commissioning the work and in particular to Will Orr and his team for facilitating the investigations. PCA are also grateful to Peter Insole for his advice and for monitoring the work. Illustrations were produced by Diana Valk. Finds assessment was conducted by Chris Jarett. The project was managed by Tim Bradley, who was also edited this report.

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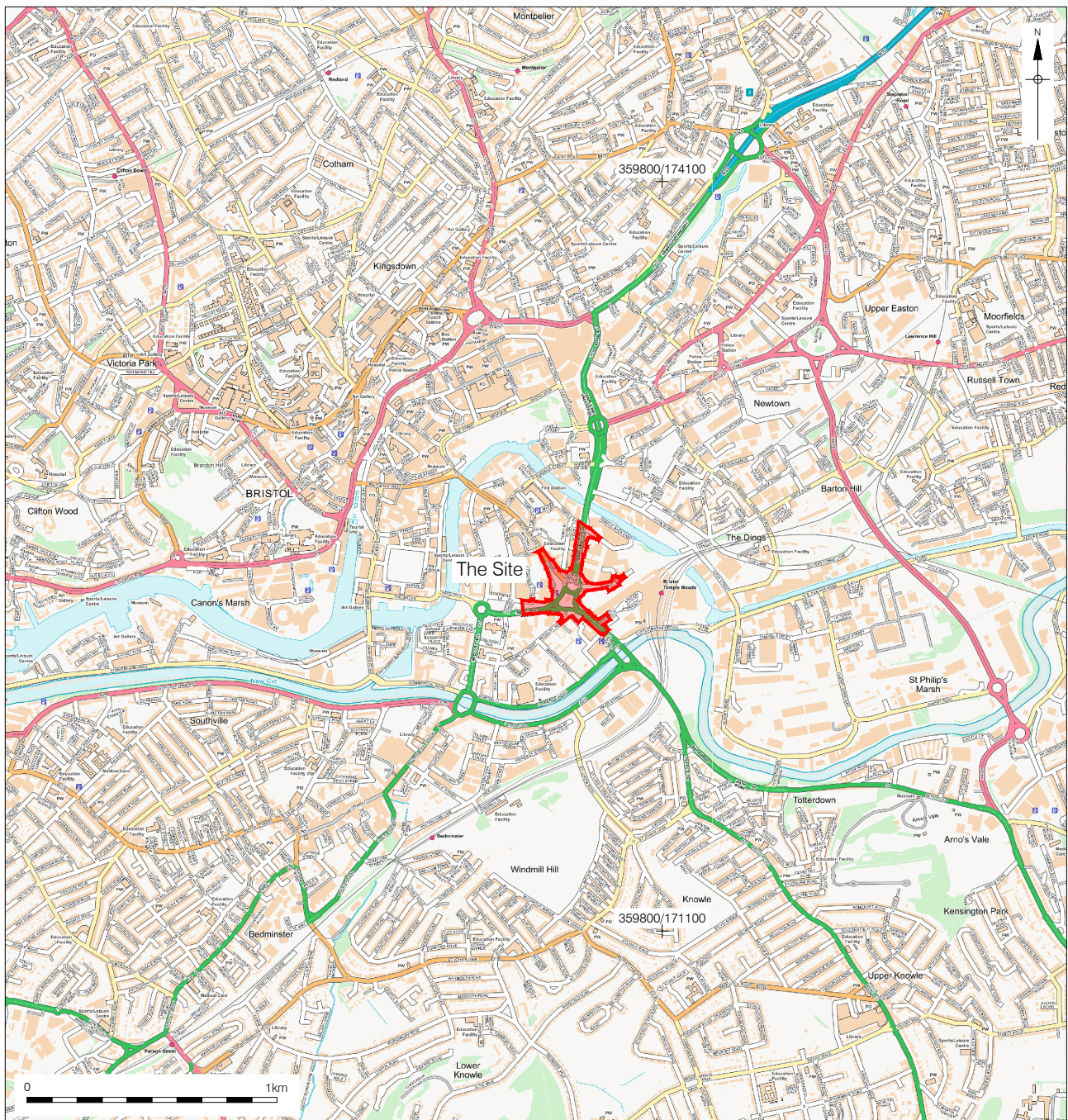
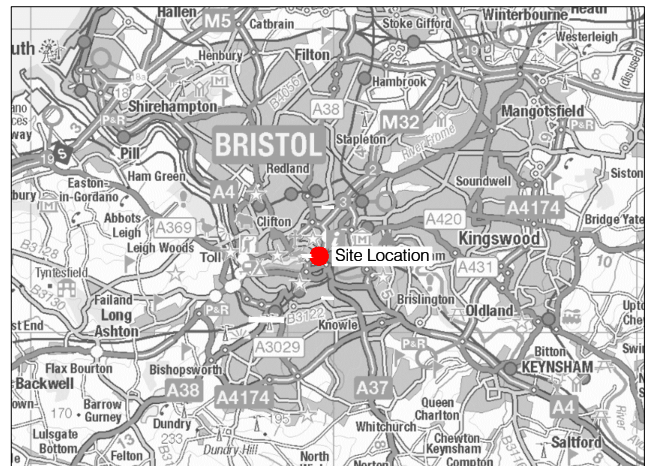
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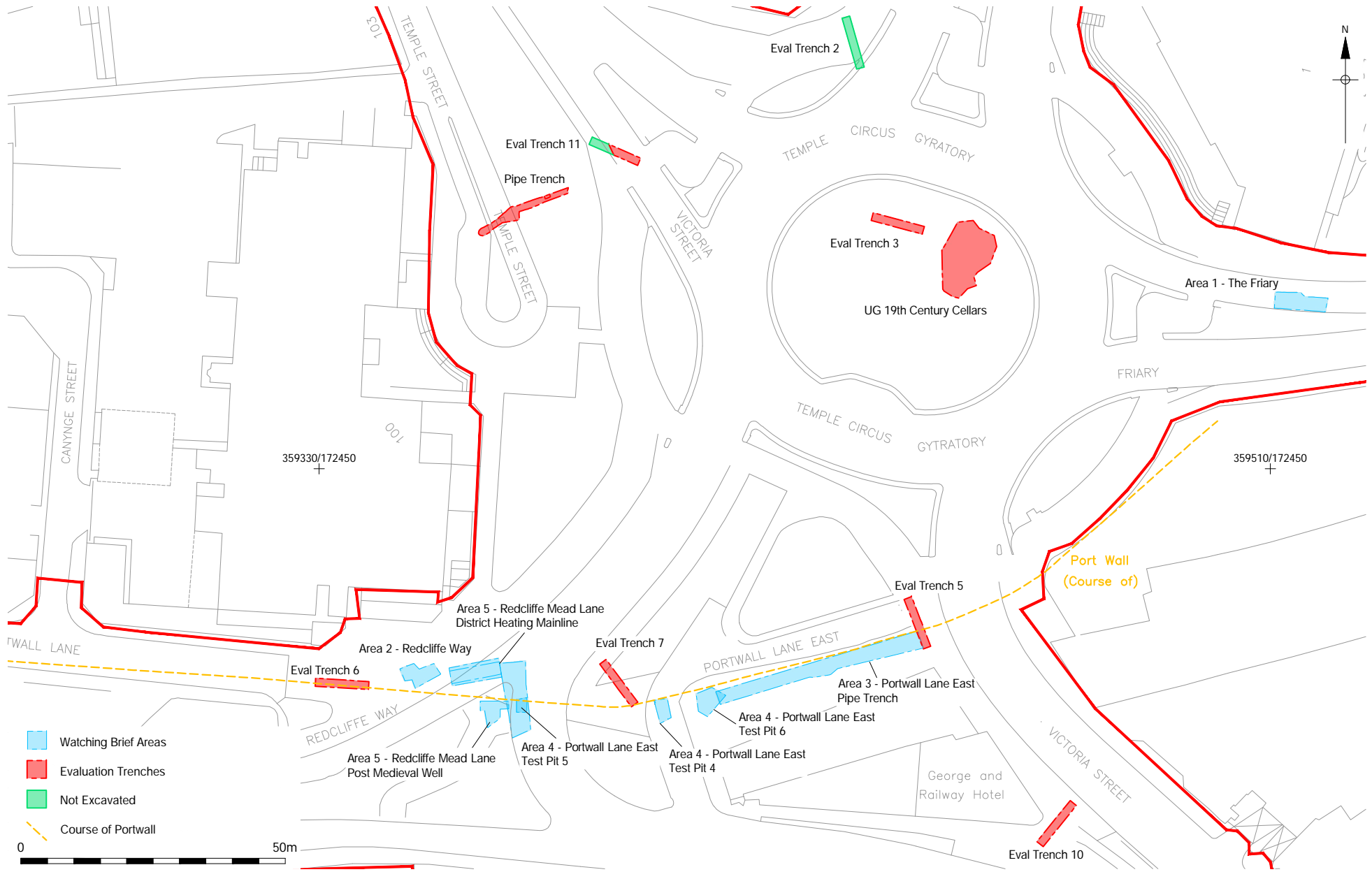
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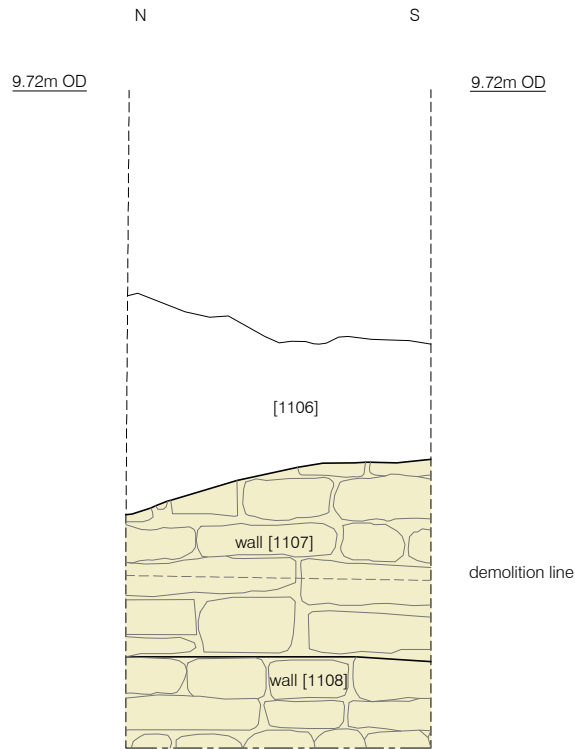


Area 1, The Friary

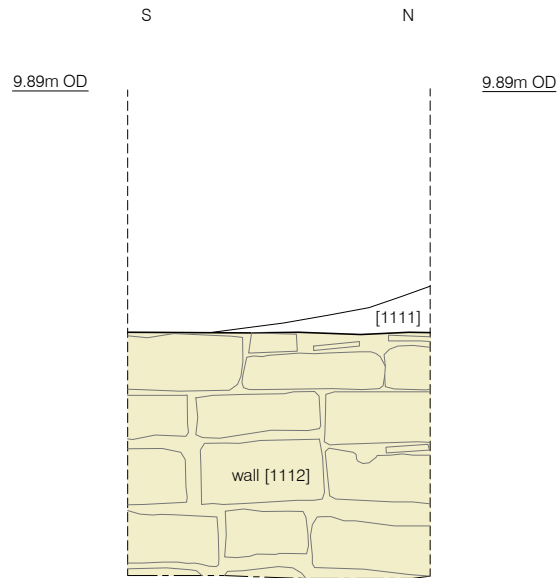


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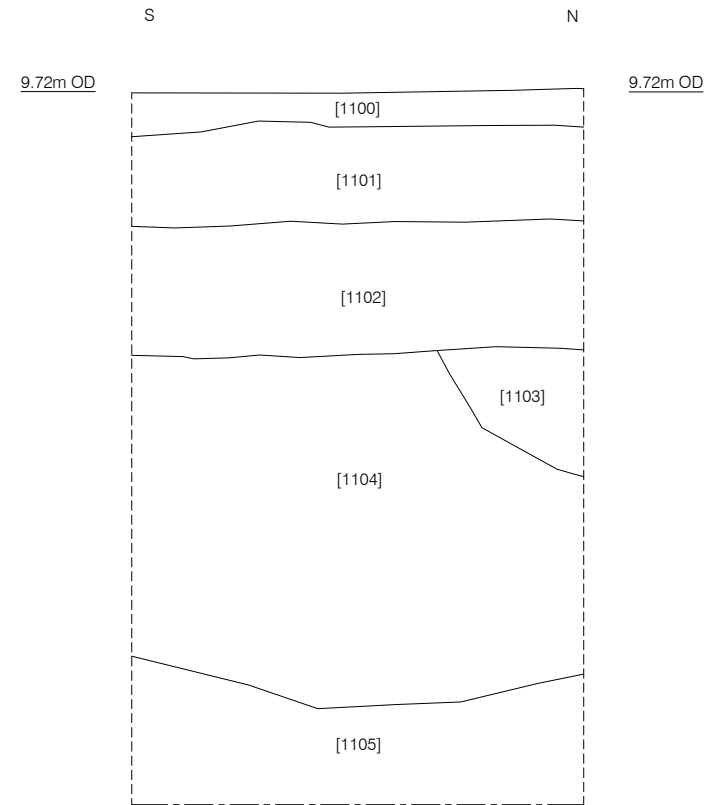
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Section 1
West Facing Elevation
Area 1, The Friary



Section 2
East Facing Elevation
Area 1, The Friary



Section 3
East Facing
Area 1, The Friary





Area 5, Post-Medieval Well

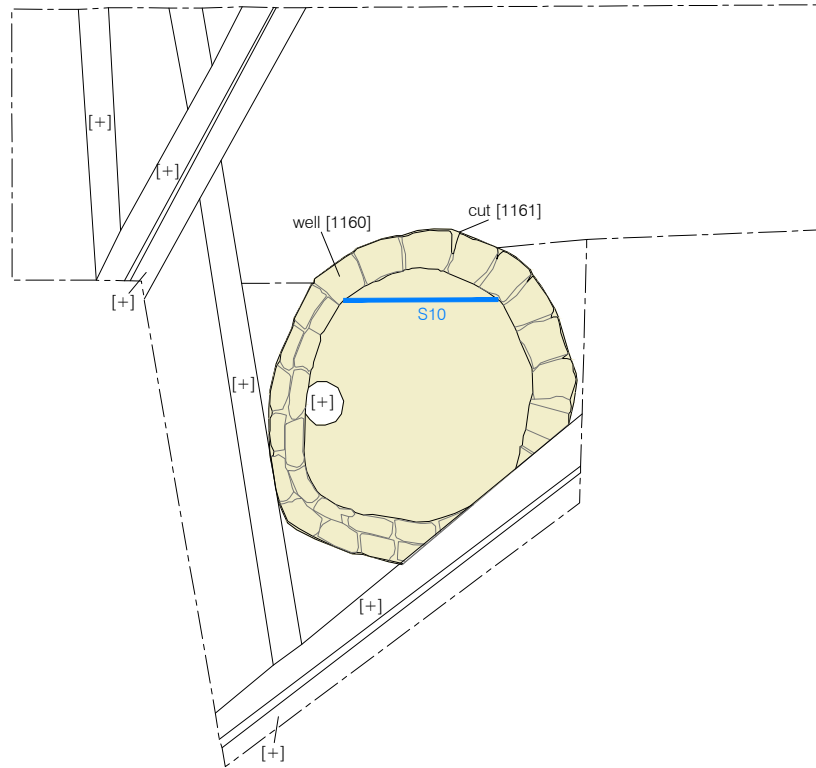
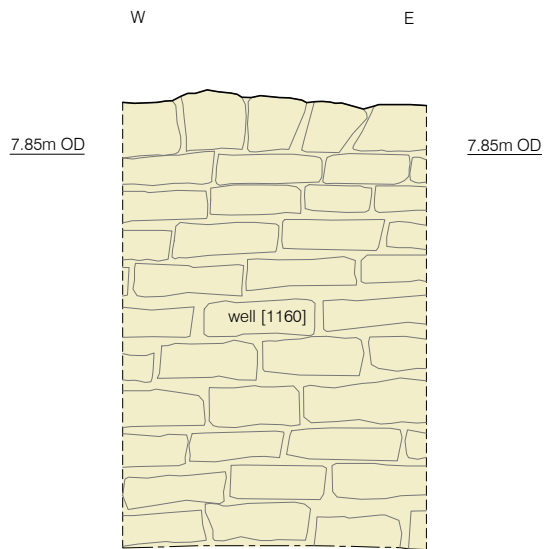


Figure 5
Trench Plan of Area 5, Post-Medieval Well
1:50 at A4

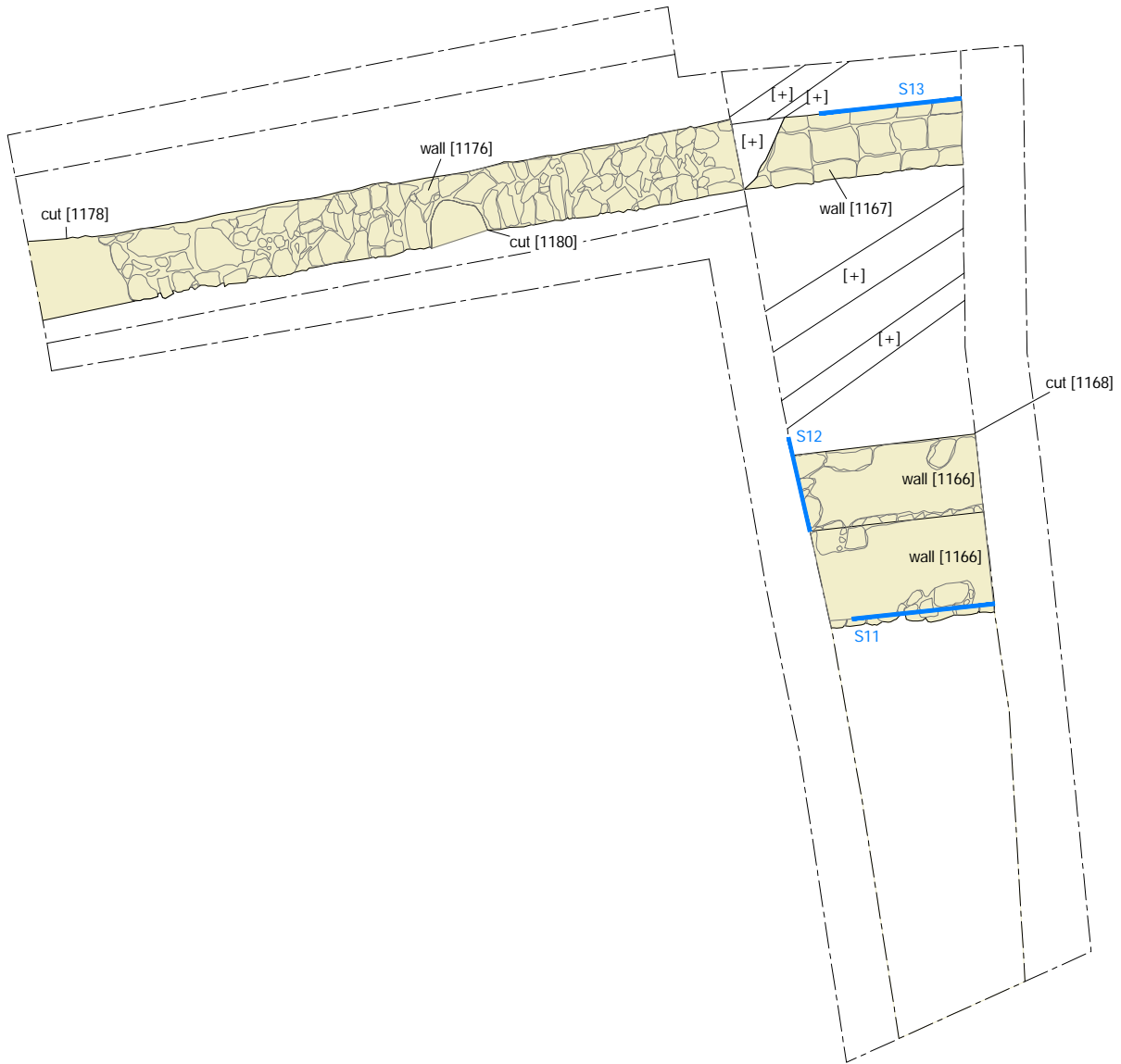


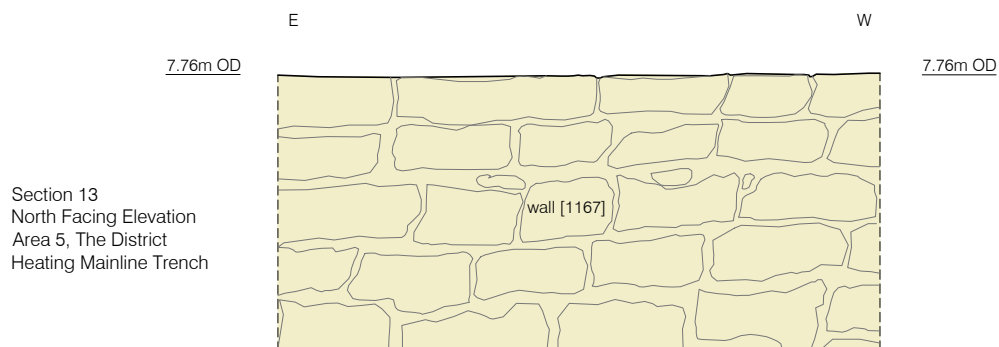
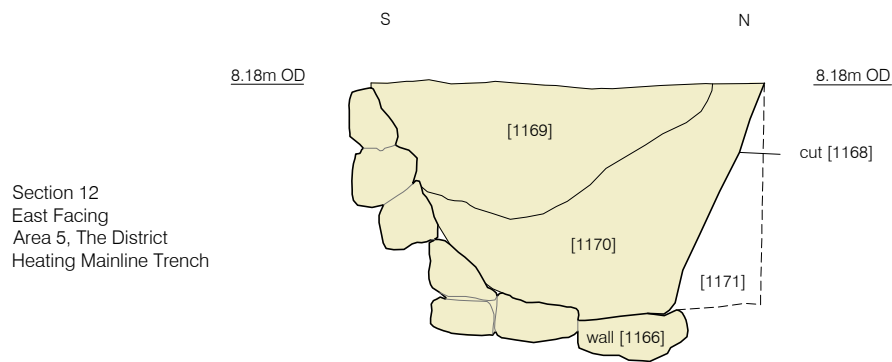
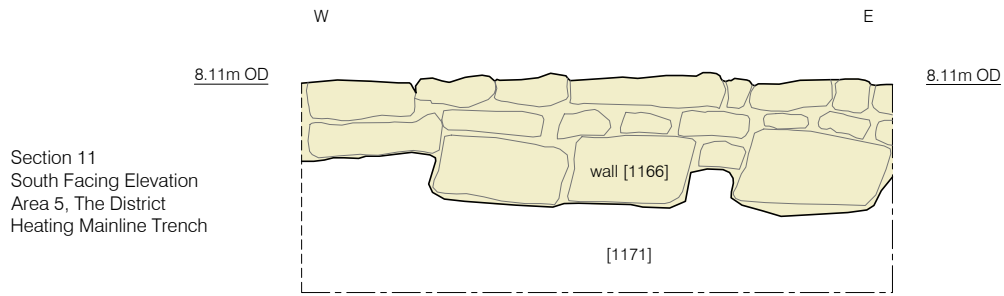
Section 10
South Facing Elevation
Area 5, Post-Medieval Well





Area 5, The District Heating Mainline Trench





10 APPENDIX 1: PLATES

Plate 1, Photo of the Portwall (1129) looking north being impacted by later developments (1133)



Plate 2, Photo of the Portwall (1147) within Test Pit 5, showing survival in the area before being impacted by the district heating main trench



Plate 3, Photo of a 19th C. Well (1160) looking north



Plate 4, Photo of the Portwall (1166) within the district heating main trench, looking west



Plate 5, Photo of the Portwall (1166) within the district heating main trench looking northwest.



Plate 6, Photo of Wall (1167)



Plate 7, Photo of the continuation of wall (1176) looking west



Plate 8, Photo of robber cut [1168] effecting the Portwall (1166) within the district heating main trench.



11 APPENDIX 2: CONTEXT INDEX

Context Number	Context type	Description	Height/depth	Discussion
1000	Layer	Tarmac: actual ground surface	-	-
1001	Layer	Made ground: red gravel	-	-
1002	Layer	Tarmac: old road surface	-	-
1003	Layer	Concrete	-	-
1004	Layer	Surface of mixed brick and stone	-	-
1005	Fill	Fill of 19th/20th C. Ceramic conduit pipe trench	-	-
1006	Layer	Dark sooty layer (18th C.)	-	-
1007	Layer	Dark greyish black clayey silt	-	-
1008	Cut	Cut of 19th/20th C. Ceramic conduit pipe trench	-	-
1009	Layer	Light yellow brown clayey sand and mortar	-	-
1010	Masonry	Large blocks of hewn and bonded sandstone	-	-
1011	Layer	Light yellow brown clayey sand and mortar	-	-
1012	Fill	Fill of irregular pit	-	-
1013	Cut	Cut of irregular pit	-	-
1014	Layer	Redeposit of natural clay and rounded stones (shingle)	-	-
1015	Layer	Sandy infill/levelling deposit	-	-
1016	Masonry	N-S wall abutting [1017]	-	-
1017	Masonry	N-S and E-W wall (ext. House wall?)	-	-
1018	Masonry	Remains of E-W wall abutting 1019	-	-
1019	Masonry	Remains of heavily truncated E-W wall	-	-
1020	Masonry	E-W wall	-	-
1021	Layer	Dump of large stones	-	-
1022	Layer	Redeposit (clay associated with Portwall construction)	-	-
1023	Masonry	Medieval Portwall	-	-
1024	Masonry	Blocks of bonded limestone	-	-
1025	Layer	Clay associated with Portwall	-	-

		destruction/dismantling		
1026	Layer	Backfill of construction cut	-	-
1027	Layer	Successive tarmac surfaces	-	-
1028	Layer	Road levelling: compacted fine pink gravel	-	-
1029	Layer	Road levelling: rough pink stony gravel	-	-
1030	Layer	Fine blackish sand (blinding)	-	-
1031	Layer	Demolition/building rubble	-	-
1032	Layer	Make-up layer	-	-
1033	Layer	Redeposited clay associated with Portwall construction	-	-
1034	Layer	Redeposited clay associated with Portwall construction	-	-
1035	Masonry	Rebuilding of a structure on the Portwall	-	-
1036	Layer	Robbed out Portwall destruction layer	-	-
1037	Masonry	Medieval Portwall	-	-
1038	Layer	Made ground: post-medieval dumping	-	-
1039	Layer	Made ground: possible cess/alluvium	-	-
1040	Fill	19th C. backfill of services trench	-	-
1041	Cut	Cut of 19th C. service trench	-	-
1042	Masonry	19th/20th C. wall	-	-
1043	Masonry	Built remains of carriageways	-	-
1044	Cut	Construction cut for 18th / 19th C. structures	-	-
1045	Layer	Dark sooty layer (18th C.)	-	-
1100	Fill	Solid, very dark blue/brown (black tarmac). 0.15m thick	9.73m	Modern road surface
1101	Fill	Loose, light brownish red gravel. 0.32m thick	9.68m	Modern gravel levelling layer
1102	Fill	Loose, light brownish yellow gravel. 0.43m thick	9.36m	Modern gravel levelling layer associated with road surface
1103	Fill	Firm, light grey concrete rubble/gravel. N-S 0.49m x 0.42m thick	8.93m	Dump of modern concrete / gravel
1104	Fill	Friable, mid-grey brown clay silt. Occ. rebar, occ.	8.93m	Modern early C20th made ground

		CBM, mod. Charcoal, mod. Concrete, mod. Mixed gravel. 1.16m thick		
1105	Fill	Firm, mid-reddish/brown silty clay. Mod. Charcoal flecks, mod. Lime/chalk flecks	7.77m	Possible natural redeposit likely associated with construction of 1008
1106	Fill	Firm, very dark blueish black silt tarmac. Occ. Charcoal; 2.84m N-S x 0.82m E-W x 0.72m thick	9.06m	Modern dump of corroded tarmac. Stuck on wall 1007
1107	Masonry	Reddish sandstone occ. Red brick. 2-4 courses wide, no bond/random. White Lime/sand mortar. 3.26m N-S x 0.70m E-W x 1.05m thick	8.96m	C19th wall rebuild consistent with Wessex report. Removed as planned for heating pipe trench. Cut by modern bricked drain 1110 + 1109.
1108	Masonry	Reddish sandstone; 3 courses, mixed bond; E-W direction of face/s; sandy yellowish mortar; 3.26m N-S x 0.70m E-W x 0.44m thick	7.70m	Remains of medieval Portwall or earlier rebuild
1109	Masonry	Frogged red brick; 240mm x 110mm x 80mm; brick drain; hard grey cement bonding material; damaged by machine	8.94m	Modern red brick drain / C20th
1110	Cut	Linear, straight sides, flat base, 3.26m x 0.76m x 0.83m; N-S orientation; filled by 1009	8.90m	Cut for drain 1109
1111	Fill	Friable, mid greyish brown clay silt. Mod. Charcoal flecks, mod. Concrete rubble, mod. Mixed gravel, occ. CBM, occ. Metal rebar	8.91m	Modern / early C20th made ground. Likely same deposit / phase as 1104
1112	Masonry	Large grey sandstone, tile, brick. Very mixed stone finish. Wall, E-W direction of face/s	9.05m	C19-20th wall as described in Wessex report
1113	Fill	Solid, very dark (black tarmac) tarmac/asphalt. 0.52m thick	9.09m	Modern tarmac
1114	Fill	Loose, light reddish-brown gravel. 0.15m thick	8.57m	Modern made ground
1115	Fill	Loose, mid brown silty sand. Frequent brick + hardcore inclusions. 0.25m thick	8.42m	Made ground, likely C20th
1116	Masonry	Red brick + sandstone flagstones, N-S wall, sandy mortar. N-S 1.06m, E-W 3.02m, 0.25m thick	8.26m	C19th rebuild using Portwall as base

1117	Masonry	Sandstone; yellow/green sandy mortar; 1.16m N-S, 3.02m E-W, 0.50m thick	7.94	Medieval Portwall, used as footing
1118	Fill	Loose, very dark brown sandy silt. Frequent charcoal, masonry frags & CBM. 1.06m N-S, 3.02m E-W, 0.02m thick	7.93m	C17th layer associated with robbing of Portwall
1119	Fill	Firm, mid-brown clay. Moderate charcoal flecks, occ. CBM flecks, mod. Masonry frags. 0.48m N-S, 3.08m E-W, 0.49m thick	7.33m	Clay associated with Portwall construction
1120	Fill	Firm, mid-brown clay. Frequent concrete + CBM frags. 1.95m N-S, 2.28m E-W, thickness unseen	8.11m	Clay redeposited by modern construction
1121	Masonry	Brick + concrete mix, footing. Modern concrete	8.68m	Footing for fiber optic cable
1122	Masonry	Drain pipe set in a concrete structure	-	Drain pipe within concrete structure
1123	Fill	Solid, very dark (black tarmac) tarmac/asphalt. 0.12m thick	8.89m	Modern road surface
1124	Fill	Friable, mid-dark reddish/brown sandy silt modern gravel. 0.14m – 0.22m thick	8.79m	Modern ground makeup
1125	Fill	Compact, mid grey silty sandy mortar cobbles set in a matrix. 0.17m thick	8.64m	C20th cobble surface
1126	Fill	Friable, mid greyish brown sandy silt. Occ. Charcoal flecks, occ. Fe scrap metal. 0.60m thick	-	C20th ground makeup
1127	VOID	VOID	VOID	VOID
1128	VOID	VOID	VOID	VOID
1129	Masonry	Red sandstone; clay + sand yellowish mortar	7.49m	Medieval Portwall
1130	Masonry	Concrete foundation	6.40m	Concrete base for oil separation tank
1131	Fill	Friable, very dark brown sand silt. Charcoal flecks. 1.90m thick	8.59m	Dark ground makeup
1132	VOID	VOID	VOID	VOID
1133	Masonry	Red sandstone, N-S wall; light grey mortar.	8.24m	C19 rebuild of Portwall
1134	Fill	Firm, mid reddish brown clay. Occ. Sandstone (red) frags. Unseen depth.	6.57m	Clay layer of packing against wall

1135	Masonry	Sandstone. Varied material size – 250 x 300mm x 200mm. Wall / platform. E-W direction of face; hard clinker-based light grey mortar	??	C19 wall possibly reusing sandstone from Portwall. Hard clinker-based mortar suggest later build – C19.
1136	Fill	Firm, black tarmac/asphalt. 0.22m thick	8.94m	Modern asphalt / tarmac
1137	Fill	Loose, mid-light grey gravel. Whole test pit 0.71m	8.72m	Ground makeup type 2 gravel
1138	Fill	Solid, light grey concrete. 2.20m E-W x 0.59m N-S x 0.66m thick	8.01m	Concrete + service pipe
1139	Cut	Linear, curved sides, irregular base, 0.59m N-S x 2.20m E-W x 0.66m thick. E-W orientation. Filled by 1138	8.01m	Cut for pipe 1138
1140	Fill	Compact, dark brown gravel/silt. 0.67m x 4.10m x 0.97m thick	7.72m	Backfill of water mains pipe trench. Pipe has 0.50m diameter. Modern
1141	Cut	Linear, straight sides, flat base. 0.67m N-S x 4.10m E-W x 0.97m deep. E-W orientation. Filled by 1140	7.72m	Modern pipe trench
1142	Masonry	Red sandstone; 7 courses exposed. Direction of face/s = E-W; reddish sandy silty mortar	8.03M	Heavily damaged Portwall. Impacted by 1141 & 1139. Mortar / build same as seen across study area
1143	Fill	Loose, mid greyish brown silty sand. Gravel + sandstone	7.14m	Modern/post-med made ground with sandstone inclusions from wall demo
1144	Fill	Firm, yellowish grey brown clay	6.75m	Layer of clay abutting Portwall
1145	Fill	Solid, very dark brown (black asphalt) tarmac/asphalt. 0.46m thick	9.04m	Modern road surface
1146	Fill	Solid, grey concrete with orange electrical cable	8.23m	Electrical cable, live, for nearby traffic lights
1147	Masonry	Red sandstone, cut to blocks; 3 courses exposed; E-W direction of face/s; red sandy/silty mortar	8.11m	Portwall. Good condition. Mortar + bonding material typical of that seen across the site
1148	Fill	Solid, grey concrete + metal pipe	8.25m	Concrete setting for metal pipe. Covers Portwall 1147, not truncate
1149	Fill	Loose, mid grey gravel	8.52m	Type 2 gravel
1150	Layer	Compact, dark	-	Modern road surface
1151	layer	Loose, mid grey gravel,	-	Type 2 gravel
1152	Masonry	Modern manhole	-	Modern manhole

1153	Cut	Construction cut for modern manhole	-	Cut for modern manhole
1154	Masonry	Medieval Portwall	8.21m	Medieval Portwall
1155	Layer	Clay layer abutting Portwall	7.19m	Clay layer abutting wall
1156	VOID	VOID	VOID	VOID
1157	Layer	Solid black tarmac	9.09m	Modern road surface
1158	Layer	Loose grey gravel	8.89m	Modern gravel type 2
1159	Layer	Friable greyish Brown, silty sand.	8.49m	20 th C Made Ground
1160	Masonry	Mixture of Greystone and red brick, Grey clinker mortar, 2.00m external and 1.40m internal diameter. Over 7.00m deep.	8.04m	Post-med. well
1161	Cut	Circular, straight, unseen likely flat, same dimensions as (1160)	8.04m	Post-med well cut.
1162	Layer	Compact mid yellowish brown clay	7.84m	Natural Clay
1163	Layer	Solid black tarmac	9.14m	Modern Tarmac
1164	Layer	Solid Grey Concrete	8.83m	Modern Concrete
1165	Layer	Friable, Dark Brown Silty Sand	8.63m	20 th C. Made Ground
1166	Masonry	Stone, medium-large, Wall, E-W alignment, Red Sandy mortar	8.08m	Medieval Portwall
1167	Masonry	Stone, 5 courses, yellowish sandy mortar, pottery recovered from the fabric of the wall	7.81m	Medieval Wall
1168	Cut	Linear cut	8.18m	18 th C. robber cut
1169	Fill	Friable, Very Dark Black, Silty Clay, Charcoal	8.18m	Sealing fill of robber cut
1170	Fill	Friable Yellowish Mid brown, Sandy Silt	7.94m	Primary fill of robber cut
1171	Layer	Firm Orangish Brown clay, Occasional Stone.	7.25m	Clay abutting Portwall
1172	Layer	Compact, Dark Grey	9.11m	Tarmac layer for roadway
1173	Layer	Solid, light grey,	9.03m	Concrete base
1174	Layer	Loose, mid brownish grey, sandy silt, Made ground	8.80m	Made ground
1175	Layer	Loose, Mottled Mid Brownish Grey	7.35m	Packing layer for wall

1176	Masonry	Greyish sandstone, one course, set into a silty matrix, 12.5m long E-W	7.48m	medieval wall, same as 1167
1177	Layer	Packing layer for wall	7.18m	Packing layer for wall
1178	Cut	Linear, flat based, E-W	7.18m	Robber cut
1179	Fill	Friable, light yellowish brown, silty clay,	7.18m	Fill of robber cut
1180	Cut	Semi circular, vertical, uneven base	7.15m	Robber cut of wall
1181	Fill	Friable Dark greyish brown, sandy silt, freq. stone frags	7.15m	Fill robber cut
1182	Layer	Compacted, Brownish grey, silty clay	7.18m	Packing layer against wall

12 APPENDIX 3: OASIS FORM

OASIS ID: preconst1-371957

Project details

Project name	Bristol Temple Circus Gyratory: Archaeological Investigations
Short description of the project	Archaeological watching brief investigation at Temple Circus, Bristol to record any archaeological remains revealed during the reconfiguring of the Temple Circus Gyratory, which included new vehicle, pedestrian and cycling routes as well as new services. A range of archaeological remains were observed across the study area. Most prominent was the 13th century Portwall which survived as a recognisable heritage asset to variable extents across the interventions. Where possible during the project, this was left in situ and engineered around. However, within Test Pit 6 a portion of it had to be removed to facilitate the installation of the District Heating Main along Redcliffe Mead Lane. In addition to the Portwall, other medieval, 16th century and post-medieval archaeological remains were observed during the project.
Project dates	Start: 03-07-2017 End: 15-05-2019
Previous/future work	No / No
Type of project	Recording project
Site status	Area of Archaeological Importance (AAI)
Current Land use	Transport and Utilities 1 - Highways and road transport
Monument type	WALL Medieval
Monument type	WALL Post Medieval
Monument type	WELL Post Medieval
Significant Finds	POTTERY Medieval
Significant Finds	POTTERY Post Medieval
Significant Finds	GLASS Medieval
Significant Finds	CLAY PIPE Post Medieval

Project location

Country	England
Site location	CITY OF BRISTOL CITY OF BRISTOL BRISTOL Bristol Temple Circus
Postcode	BS1 6FB
Study area	16780 Square metres
Site coordinates	ST 5943 7245 51.449091439075 -2.583882924216 51 26 56 N 002 35 01 W Point

Project creators

Name of Organisation	PCA Warwick
Project brief originator	Bristol City Council
Project design originator	Tim Bradley, PCA

Project director/manager	Tim Bradley
Project supervisor	James Webb
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Eurovia Infrastructure Ltd.

Project archives

Physical Archive recipient	Bristol Museum and Art Gallery
Physical Contents	"Ceramics","Glass"
Digital Archive recipient	Bristol Museum and Art Gallery
Digital Contents	"Ceramics","Glass","Stratigraphic"
Digital Media available	"Database","GIS","Spreadsheets","Text"
Paper Archive recipient	Bristol Museum and Art Gallery
Paper Contents	"Ceramics","Glass","Stratigraphic"
Paper Media available	"Context sheet","Drawing","Plan","Report","Section","Unpublished Text"

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