

Site \& Landscape Survey

# Braid Burn Flood Prevention Scheme (WU12) Adelphi Place, Edinburgh 

## Archaeological Watching Brief

Report No. 1727
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## CFA ARCHAEOLOGY LTD

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## 1. INTRODUCTION

### 1.1 General

1.1.1 This report presents the results of an archaeological watching undertaken by CFA Archaeology Ltd (CFA) from February to June 2009 at Adelphi Place, Portobello, Edinburgh (NGR: NT 303 740), during groundbreaking works associated with the Braid Burn Flood Prevention Scheme. The work was commissioned by The City of Edinburgh Council. A Written Scheme of Investigation (WSI) for the project was produced by CFA based upon documents provided by City of Edinburgh Council Archaeological Service (CECAS).
1.1.2 The groundbreaking works at Adelphi Place consisted of an excavation for a culvert of circa 250 m long by 5 m wide and circa 2.5 m deep (Fig. 1). The route of the culvert was aligned northeast to southwest and was bounded on its western side by a bank of demolition material used in the landscaping and ground levelling work for the modern business park. On its eastern side ran a red-brick wall the length of the culvert. A structural survey of this wall had previously been undertaken by Cressey (2008) and has been issued under a separate cover. This work, Work Unit 12 (WU12), was part of the Braid Burn Flood Prevention scheme.
1.1.3 An archaeological watching brief was required by CECAS because of the possibility of buried remains associated with the $18^{\text {th }}$ and $19^{\text {th }}$ century pottery and brick and tile factories, within the area of development (See below).

### 1.2 Historical Background (Haggerty 2009b)

1.2.1 In 1765 William Jamieson an Edinburgh speculative builder bought a 10 acre plot of land to the east and adjacent to the Frigate Burn in Portobello upon which he built a Redware brick and tile factory. Jamieson also built a white ware pottery initially either for the manufacture of White Salt Glazed Stoneware or Creamware or possibly both, and later for the manufacture of Pearlware, Prattware and possibly painted wares. By 1795 the white ware pottery had been leased to Cookston \& Jardine, an Edinburgh china retailer.
1.2.2 During the later $18^{\text {th }}$ century a number of other potteries began production in Portobello. A George Dawson had in 1782 taken out a ninety-nine year lease on the three acres of land bounded by the sea on the opposite side of the Frigate burn from Jamieson. An inventory of his possessions show that he may have been producing cream ware as among his possessions were ten dozen plate moulds, five dozen dish moulds and a mill and a half mill of saggars. Similarly Anthony Hilcot was a redware potter, who had moved from Morrison's Haven to Portobello c. 1779 and where he operated both a pottery and brickworks. Later he was involved in the manufacture of a substitute, for very expensive cobalt, at his nearby blood works, and this must have been sold for use in the decoration of Porcelain or white earthenware.
1.2.3 By 1805 one of Jamieson potteries was in the hands of Thomas Yool. His daughter Grace married a Staffordshire potter, Thomas Rathbone, and their children were involved after Thomas death in 1826, with the running of the pottery until 1853. During the Rathbone period of ownership a large range of high quality ceramics in a number of different forms, fabrics and decoration were being produced.
1.2.4 From 1859 on Stoneware becames the dominant ware produced and huge amounts of it were made including salt glazed, Bristol dipped and the new once fired white feldspar glazed cream jars, ginger beer, ale and other bottles.
1.2.5 The second large pottery at Portobello was purchased by Thomas Tough in 1840 which produced high quality stoneware and the mass production of more utilitarian stoneware such as bottles and spirit crocks. In 1867 the Pottery was acquired by Thomas Murray and A. W. Buchan who were in partnership until 1878, when it became A.W. Buchan \& Co. This was the beginning of a relationship with Portobello and the Buchan family, which lasted until the closure of the Thistle pottery, as it had become, on the 29th June 1972 when they moved to Crieff.
1.2.6 Other pottery works in Portobello were the Abercorn Brick works run by William Creelman circa 1812 to 1839 , which produced salt glazed and red earthenware garden furniture, and between circa 1830 to 1845 Hugh and Arthur Cornwell operated a third stoneware pottery, which also traded under different names including Milne and Cornwell.
1.2.7 The third quarter of $19^{\text {th }}$ century saw dramatic changes in the British Publics taste in ceramics with the increase in tourism to Spain and the Mediterranean and it was Buchan's of Portobello that were in the forefront of this revolution.

### 1.3 Objectives

1.3.1 The objectives of the watching brief were;

- The recovery of ceramics for further analysis and dating.
- To determine the location, character, extent and quality of any features or objects of archaeological importance that may have survived within the application area, and which could have been damaged or destroyed by the development. In particular any remains associated with the various pottery and brick and tile factories that were located in this area during the $18^{\text {th }}$ and $19^{\text {th }}$ centuries.


## 2. WORKING METHODS

### 2.1 General

2.1.1 CFA Archaeology Ltd follows the Institute of Field Archaeologists Code of Conduct, Standards and Guidance for Archaeological Watching Briefs. Recording of all elements followed established CFA methods, principally by drawing, photography and completion of standard recording forms.

### 2.2 Watching Brief

2.1.2 The culvert was excavated using a mechanical excavator fitted with either a smooth-bladed ditching bucket or a toothed bucket according to the subsoil conditions. The excavation was conducted under constant archaeological supervision.
2.2.2 A methodology for the potential recovery of important ceramics, their associated moulds as well as brick and tiles was prepared by George Haggarty (2009 b) and was issued to the archaeologists in advance of the watching brief.

## 3. ARCHAEOLOGICAL RESULTS

3.1 The following text presents the results of the watching brief. Contexts numbers are given in bold and parentheses. Appendix 1 gives full descriptions including dimensions of these contexts.
3.2 There were a number archaeological features recorded within the culvert excavation trench, including brick walls, culvert drains and pits. A large artefact assemblage was also recovered including various types of ceramics, stoneware, glass bottles, glass slag, plaster of paris moulds, bricks and tiles. Details of these are contained in the report by George Haggerty (2009a).
3.3 The excavation was undertaken in 5 m lengths starting from Adelphi place and continuing southward. The results are presented in the order north to south along the culvert excavation trench (Fig. 1). The excavated ground was largely made up of a variety of deposits and dumps of material for the purpose of building up and levelling the ground during the construction of the modern industrial park to the immediate west of the excavation. These deposits overlay the natural yellow sand subsoil (005). A full list of these deposits is given in Appendix 1

Excavation from confluence chamber south to chainage 40.000. Remnant building structures.
3.4 A number of red brick mortared walls, concrete floors, culverts, demolition material and various imported deposits were recorded in this section. Some of these features are thought to be the remains of the basements of the buildings that are depicted on the $1^{\text {st }}$ and $2^{\text {nd }}$ Ed OS map as having once occupied this area (Figs. 4 and 5). These basements or cellars were founded within the natural sand subsoil (005) and were generally in-filled and buried with a
black-grey silt matrix (101) which contained numerous lenses and deposits of various demolition related material.
3.5 First encountered was a set of three parallel red brick walls (112, 113 and 114), aligned southeast to northwest. Based on the stratigraphy these walls may represent at least two successive building phases. The first phase of building began with the laying of a concrete slab (117) on top of which was laid a red brick floor (116). The floor was abutted by wall (114) which also keyed into a wall ( $\mathbf{0 0 9 \text { ) to the south, forming two sides of a rectangular }}$ structure with a red brick floor. The second putative phase of building began with the laying of another concrete floor (115) over the original red brick floor (116), and it was on top of this that parallel walls ( 112 and 113) were built. These walls continued out of the excavation trench.
3.6 Immediately southwest of walls (112, $\mathbf{1 1 3}$ and 114) was a large metal tank (119) and the corner of a wall (023) projecting from the southeast facing section of the excavation.
3.7 Southwest of wall ( $\mathbf{0 2 3}$ ) were four walls of a room ( $\mathbf{0 0 9}, \mathbf{0 1 1}, \mathbf{1 1 8}$ and $\mathbf{0 2 0})$. Incorporated into wall (009) was an arched doorway (010) beyond which lay the remains of the putative room defined by the red brick floor (116) and wall (114) (Figs. 2 and 3). Immediately to the south of this room and projecting from the western edge of the excavation was the corner of a square concrete block ( $\mathbf{0 1 2 )}$ on top of which was a square of brick work (013). The bricks were stamped with the word 'Thistle' and were manufactured at Thistle Pottery Portabello which operated from 1770-1972 (Douglas and Oglethorpe 1993).
3.8 To the south of the room $(\mathbf{0 0 9}, \mathbf{0 1 1}, \mathbf{1 1 8}$ and $\mathbf{0 2 0})$ were the probable remains of another room defined by two walls and a concrete floor. Wall (001) was aligned southwest to northeast and keyed into wall (003) of which only two courses survived. Walls (001 and 003) also overlay a concrete slab (008) which was probably the remains of a floor.
3.9 At 1.4 m below current ground surface and south of walls ( $\mathbf{0 0 1}$ and $\mathbf{0 0 3 \text { ) were }}$ two parallel red brick walls set 2 m apart ( 099 and 100). They were aligned northeast to southwest and abutted with wall (102) which was aligned northwest to southeast.
3.10 A further two possible red brick built rooms and associated drainage were recorded to the south of wall (102). The first was defined by three walls. Wall (104) was aligned east to west and keyed into wall (105) which was aligned northwest to southeast, which in turn keyed into wall (106) which was aligned northeast to southwest.
3.11 The second room was defined by two returning walls ( 098 lower and 109 upper), that were separated by a lens of rubble and soil (107). Both walls (098 and 109) returned and continued along the southeast facing section of the trench as did the probable demolition layer (107). Abutting walls (098 and $\mathbf{1 0 9 )}$ to the east was wall (108) distinguished from the other walls by the fact that the bricks were end set rather than edge set.
3.12 Three culverts were recorded in association with walls (106 and 098). A culvert (103) was incorporated into the lower courses of wall (106). It was aligned northwest to southeast and fed into a further culvert (110) aligned east to west which ran across the width of the excavation. A third culvert (097) also fed into culvert (110) on its southern side.
3.13 The remnants of four other red brick built walls were recorded south of wall (109) and appear in isolation. They were as follows (093) aligned northwest to southeast, (082) aligned northeast to southwest, (121) aligned north to south and (066) aligned north to south.
3.12 A fragmented concrete slab (067), possibly the remains of a floor was recorded 2 m below current ground surface adjacent to but not abutting wall (066).

Excavation from chainage 120.000 to 00.000. Pits and pottery dumps.
3.13 A number of pits and dumps containing pottery, glass and stoneware were recorded during the excavation of this section of the culvert.
3.14 A large pit (036) was partially exposed within the trench it measured 20 m by 2.75 m deep was filled with deposits of ash, shale, mortar, redware brick fragments, glass slag, circular extruded redware tile and double circular extruded redware tile ( $\mathbf{0 3 5}$ ). The pit was straight sided, suggestive of being excavated by machine and cut the sandy natural subsoil (096) and was sealed by a deposit dark clay and sand (033).
3.15 A spread of broken and crushed glass (031) was recorded in the northeastern facing section of the excavation and measured 10 m long by 0.5 m deep and was underlying a deposit of hardcore (025) and overlay a deposit of cinders and ash (044). Underlying (031) at its southern end and seen in section only was a small pit ( $\mathbf{0 4 2}$ ) measuring 1 m long by 0.5 m deep, recovered finds included stoneware shards consisting mainly of Buchan's hand painted polychrome wares with some monochrome wares in red, blue and green (043). Also underlying deposit (031) was a concentrated deposit of mixed ceramic material and glass, large lumps of glass, earthenware and stoneware shards including fragments of three bed warmers, monochrome bowl, cream jugs, graveside flower blocks and white slipped redware dairy bowl (032).
3.16 To the south of pit (031) was another pit (040) which was partly exposed in the northeast facing section of the excavation and measured 30 m long by 0.5 m deep. Recovered finds included complete stoneware jars, pots and whiskey flagons as well as shards of whiskey flagons within its fill (041). The pit was sealed by an embankment of mixed and disturbed silty soils (054) and cut a deposit of silty sand (045). A dump of stoneware (047) was recorded in this embankment material.
3.18 Opposite pit ( $\mathbf{0 4 0 )}$ was a small pit ( $\mathbf{0 3 8}$ ) which was partly exposed and was 8 m long by 0.5 m deep. Recovered finds included a stoneware whisky flagon
marked 'Ye Monks', a bed warmer as well as Buchan's small hand painted jar in the Festival pattern and shards of Buchan's hand painted monochrome stoneware in green, red, black and blue. These shards were from skillets, saucers, milk jugs, condiments, small creamers, flower blocks, dishes and a portovase. The pit was sealed by topsoil (029) and cut deposit (045).
3.19 Opposite to and at the southern end of pit (040) was a pit (058) which was partly exposed in the northwest facing section of the excavation which measured 15 m long by 0.2 m deep. Recovered finds included four stoneware vessels including two large Buchan's mugs a vase and a bottle, as well as undecorated stoneware bottles, a hand painted bottle in Buchan's 'Riveria' style, a small marked dish without its handle, and part of a large stoneware
 into deposit (045).
3.20 Pit (063) was seen in the northeast facing section of the excavation and measured 1.8 m long by greater than 1 m wide by 0.7 m deep. Recovered finds included mixed stoneware including some hand-painted forms, and a green monochrome posy dish and a shard marked '1950-6' o8 ' 8 '. The pit was sealed by topsoil (029) and cut through a deposit of cinders, ash and broken red bricks (065).
3.21 Four possible pit cuts $(\mathbf{0 6 0}, \mathbf{0 7 0}, \mathbf{0 8 3}$ and $\mathbf{0 8 9 )}$ ) were recorded at the southern end of the excavation. However their cuts were somewhat irregular and indistinct and may represent lenses or dumps of materials within deposit (045) rather than excavated pits. All four features underlay topsoil (029). Pit (060) was recorded in the northwest facing section of the excavation and measured 7.5 m long by 0.5 m deep. Finds recovered included shards of both small and large flagons, as well as small inkwells; handled bed warmer and monochrome wares. Pit (070) measured 3 m long by 3 m wide by 1 m deep. Recovered finds included assorted shards of Buchan's stoneware, two tone crocks and flagons, jars and blue monochrome cups and paste jars, as well as four complete glass jars. Pit ( $\mathbf{0 8 3}$ ) measured 1 m long by 1 m wide by 0.6 m deep. Recovered finds included assorted stoneware. Pit ( $\mathbf{0 8 9}$ ) measured 1.2 m long by 0.4 m wide by 0.5 m . Recovered finds included mixed ceramic shards including Buchan's monochrome brown and blue wares, hand painted wares, whisky flagons, flower blocks and bed warmers.
3.22 Two distinct deposits of material ( $\mathbf{0 6 9}$ and $\mathbf{0 7 2}$ ) were also recorded within (045). Deposit ( $\mathbf{0 6 9}$ ) measured 3 m long by 1.25 m wide and 0.45 m deep. Recovered finds include glass jars of varying colors and shapes including one marked 'James Woodrow Dunfermline and another 'Alloa', and deposit (072) was a spread of miscellaneous bottle tops with attached tin covers which measured 3 m long by 0.8 m wide by 0.1 m deep.

## 4. CONCLUSION

4.1 An archaeological watching brief was carried out during the excavation of a culvert as part of the Braid Burn Flood Prevention Scheme. The watching brief was required by CECAS as the 18th century Portobello pottery, brick and tile works, once stood adjacent to the development area to the west.
4.2 Building remains were found at the north end of the excavation. It is probable that these remains represent the basements or cellars of buildings depicted on the $1^{\text {st }}$ and $2^{\text {nd }}$ edition Town Plan (Figs. 4 and 5).
4.3 A number of pits containing pottery and pottery dumps were found along the course of the culvert excavation. The pottery and glass from these dumps has been assessed by George Haggerty (2009a). These dumps of material were found within ground that had been built up with demolition material. The pottery finds were dated to the 1950 's and in the main were manufactured by Buchan's pottery works. This ceramic assemblage is important as it reflects post World War II changing tastes in pottery styles. These changes in taste came about with the advent of package tours which subjected the mass market to new foods, drinks, styles and decoration. The pottery provided a counterpoint to the wartime austerity with mainly Spanish inspired designs adopted. Also new forms like oil and vinegar bottles were also introduced, again reflecting the changing attitudes to consumerism in the 1950's. (Haggerty 2009a).
4.4 The crushed glass, deposits of bottle tops and lumps of cullet that were recovered are suggestive of glass recycling and manufacturing taking place on this site as well.
4.5 The project archive, comprising all CFA record sheets, maps and reports, will be deposited with the National Monuments Record of Scotland (NMRS) and copies of reports will be lodged with the City of Edinburgh Council Sites and Monuments Record.

## 5. BIBLIOGRAPHY

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## APPENDIX 1: Context Register

| $\begin{aligned} & \text { Context } \\ & \text { No } \end{aligned}$ | Cut or Fill | Description | Length (m) | Width (m) | Depth/Height (m) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 001 |  | Red brick wall | 2.5 | 0.5 | 1.6 |
| 002 |  | Buried hardstanding concrete | 0.25 |  | 0.5 |
| 003 |  | Red brick wall abutting 001 | 2 |  | 0.25 |
| 004 |  | Demolition material | 2 |  | 0.3 |
| 005 |  | Natural sand subsoil |  |  |  |
| 006 |  | Demolition material |  | 1.75 | 0.25 |
| 007 |  | Brown sand |  | 2 | 1.2 |
| 008 |  | Concrete foundation |  | 3 | 0.2 |
| 009 |  | Cellar wall | 3 | 1.4 | 2.5 |
| 010 |  | Brick arched passage |  | 1.7 | 0.2 |
| 011 |  | Wall abutting 010 | 3.5 | 1.5 | 2.4 |
| 012 |  | Concrete foundation | 1.1 | 0.9 |  |
| 013 |  | Pillar | 1 | 0.8 | 0.4 |
| 014 |  | Crushed brick |  |  | 0.05 |
| 015 |  | Stone chippings |  |  | 0.04 |
| 016 |  | Mixed silty sand |  |  | 0.3 |
| 017 |  | Stone chippings |  |  | 0.15 |
| 018 |  | Sand, brick, rubble and demolition material |  |  | 0.3 |
| 019 |  | Tarmac and concrete |  |  | 0.2 |
| 020 |  | Red brick wall | 1 | 0.37 | 1 |
| 021 |  | Iron pipe |  |  |  |
| 022 |  | Unassigned |  |  |  |
| 023 |  | Corner of red brick wall | 3 | 2 | 0.65 |
| 024 |  | Hardcore |  |  | 0.18 |
| 025 |  | Mixed hardcore and soil |  |  | 0.6 |
| 026 |  | Mixed fill of ash and brick |  |  | 0.22 |
| 027 |  | Bottle tops and assorted lids |  |  | 0.4 |
| 028 |  | Disturbed soil |  |  | 0.5 |
| 029 |  | Overburden and topsoil across length of excavation |  |  | 0.2 |
| 030 |  | Mixed deposit of topsoil and sand |  |  | 0.6 |
| 031 |  | Crushed glass deposit | 10 | 1 | 0.5 |
| 032 |  | Deposit of stoneware and bricks |  |  | 0.6 |
| 033 |  | Mid-brown clayey sand |  |  | 1.5 |
| 034 |  | Unassigned |  |  |  |
| 035 | Fill of 036 | Deposit of ash, shale, mortar, brick and metal pipe |  |  |  |
| 036 | Cut of pit | Large pit | 20 | 1.75-2.75 | 1.75-2.75 |
| 037 |  | Loose dark brown clayey sand | 6 | 2.5 | 1 |
| 038 | Cut of pit | Cut of pit filled with stoneware | 8 | 1.2-2.5 | 0.5 |
| 039 | Fill of 038 | Fragments of Stoneware |  |  |  |
| 040 | Cut of pit | Cut of pit filled with sherds of glass and | 30 | 0.5-2 | 0.5 |


| $\begin{gathered} \hline \text { Context } \\ \text { No } \\ \hline \end{gathered}$ | Cut or Fill | Description | Length <br> (m) | Width (m) | $\begin{gathered} \text { Depth/Height } \\ \text { (m) } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | stoneware |  |  |  |
| 041 | Fill of 040 | Deposit of glass, lids and stoneware |  |  |  |
| 042 | Cut of pit | Pit | 1 |  | 0.5 |
| 043 | Fill of 042 | Fragments of stoneware |  |  |  |
| 044 |  | Deposit of cinders and ash | 2 |  | 0.6 |
| 045 |  | Deposit of mid-brown sandy silt | 4.75 |  | 1.5 |
| 046 |  | Deposit of dark brown silt containing fragments of pottery | 4.75 |  | 0.25 |
| 047 | Possible cut of pit | Cut of possible pit or dump of brick and stoneware material | 3.4 |  | 1 |
| 048 |  | Concrete surface of car park | 4 |  | 0.1 |
| 049 |  | Overburden of hardcore material | 4 |  | 0.15 |
| 050 |  | Deposit of mixed soils | 4 |  | 0.8 |
| 051 | Fill of 89 | Stoneware |  |  |  |
| 052 | Fill of 047 | Deposit of brick and stoneware | 3.4 |  | 1 |
| 053 |  | Deposit of sherds of glass bottles | 2.8 |  | 0.15 |
| 054 |  | Mixed and disturbed soils | 2.2 |  | 0.3 |
| 055 |  | Deposit of plaster of paris | 0.8 |  | 0.15 |
| 056 |  | Deposit of brown silt | 1.2 |  | 0.35 |
| 057 |  | Deposit of brown silt | 1 |  | 0.3 |
| 058 | Cut of pit | Cut of small pit | 15 | 2 | 0.2 |
| 059 | Fill of 058 | Fragments of stoneware |  |  |  |
| 060 | Cut of pit | Cut of small pit or possible dump of material | 7.5 |  | 0.5 |
| 061 | Fill of 060 | Fragments of stoneware |  |  |  |
| 062 |  | Deposit of overburden of ash, cinders, silt and fragments of stoneware |  |  | 0.5-2.5 |
| 063 | Cut of pit | Cut of possible pit or dump of material | 1.8 |  | 0.7 |
| 064 | Fill of 063 | Deposit of fragments of stoneware and bricks |  |  |  |
| 065 |  | Deposits of cinders and ash | 2.1 |  | 0.2 |
| 066 |  | Red brick work | 9 |  | 0.2 |
| 067 |  | Concrete surface | 9 | 3.5 | 0.2 |
| 068 |  | Brick rubble |  | 3.75 | 0.75 |
| 069 |  | Deposit of fragments of glass bottles | 3 | 1.25 | 0.45 |
| 070 | Cut of pit | Possible cut of pit or dump of material | 3 | 3 | 1 |
| 071 | Fill of 070 | Fragments of stoneware |  |  |  |
| 072 |  | Fragments of glass bottles and bottle lids | 10 | 0.8 | 0.1 |
| 073 |  | Deposits of backfill material | 30 | 0.9 | 1.2 |
| 074 |  | Deposit of sand backfill within service trench | 60 | 0.9 | 0.5 |
| 075 |  | Deposit of cinders and ash | 10 | 1.2 | 0.2 |
| 076 |  | Deposit of reddish brown sandy silt |  | 2 | 0.2 |
| 077 |  | Overburden material | $>2$ |  | 0.4 |
| 078 |  | Deposit of brick, rubble and shale | $>2$ |  | 0.1 |
| 079 |  | Thin lenses of mixed deposits |  |  |  |


| $\begin{gathered} \text { Context } \\ \text { No } \end{gathered}$ | Cut or Fill | Description | Length (m) | Width (m) | Depth/Height (m) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 080 |  | Overburden material |  |  |  |
| 081 |  | Deposit of disturbed orange clayey sand |  |  |  |
| 082 |  | Brickwork foundation | 2.2 | 1.2 | 0.8 |
| 083 |  | Spread of stoneware | 1 | 1 | 0.6 |
| 084 |  | Deposit of stoneware |  |  |  |
| 085 |  | Deposit of black silt |  | 3.75 | 1.5 |
| 086 |  | Deposit of grey ash containing tile fragments | >1,4 |  | 0.6 |
| 087 |  | Deposit of orange sand | 1 |  | 0.1 |
| 088 |  | Deposit of dark brown silt | $>2$ |  | 0.8 |
| 089 | Cut of pit | Or possible dump of stoneware | 1.2 | 0.4 | 0.5 |
| 090 |  | Deposit of grey ash containing some fragments of pottery | $>2$ |  | 0.4 |
| 091 |  | Deposit of mottled orange sand | $>2$ |  | 0.6 |
| 092 |  | Deposit of dark grey-black silt | $>2$ |  | 0.4 |
| 093 |  | Red brick work | 1 |  | 0.6 |
| 094 |  | Made-up ground | 1.2 |  | 2 |
| 095 |  | Topsoil and overburden (Same as 029) | Same as 029 |  | 0.6 |
| 096 |  | Natural sand subsoil |  |  |  |
| 097 |  | Red brick culvert |  | 0.6 | 0.7 |
| 098 |  | Red brick wall | 2.3 | 0.4 | 0.9 |
| 099 |  | Red brick wall | 5.5 | 0.6 | 0.5 |
| 100 |  | Red brick wall | 5.5 | 0.6 | 0.2 |
| 101 |  | Made ground | Length of excavation |  | Varies |
| 102 |  | Red brick wall | 4 | 0.5 | 0.6 |
| 103 |  | Culvert |  | 0.6 | 0.7 |
| 104 |  | Red brick wall | 1.8 | 1.8 | 0.5 |
| 105 |  | Red brick wall | 1.1 | 0.5 | 0.2 |
| 106 |  | Unassigned |  |  |  |
| 107 |  | Demolition layer of rubble and red brick | $>5$ |  | 0.6 |
| 108 |  | Red brick wall | 0.45 | 0.5 | 1.4 |
| 109 |  | Red brick wall | $>5$ |  | 0.4 |
| 110 |  | Red brick culvert | 2.8 | 0.8 | 0.6 |
| 111 |  | Partial brick floor | 1.1 | 1 | 0.2 |
| 112 |  | Red brick wall | 0.6 | 0.1 | 0.5 |
| 113 |  | Red brick wall | 1.4 | 0.1 | 0.5 |
| 114 |  | Red brick wall | 2.4 | 0.2 | 1 |
| 115 |  | Concrete base | 0.6 |  | 0.1 |
| 116 |  | Red brick floor | 1.1 | 2 | 0.1 |
| 117 |  | Concrete base | 2 |  | 0.1 |
| 118 |  | Brick wall | 3.7 | 0.5 | 2 |
| 119 |  | Iron tank |  |  |  |
| 120 |  | Concrete surface Adelphi Place |  |  |  |


| Context <br> No | Cut or Fill | Description | Length <br> $(\mathbf{m})$ | Width <br> $(\mathbf{m})$ | Depth/Height <br> $(\mathbf{m})$ |
| :---: | :--- | :--- | :---: | :---: | :---: |
| 121 |  | Red brick work | 2 |  | 0.6 |

## APPENDIX 2: Photographic Register

## Digital

| Shot | Description | From | Conditions |
| :---: | :---: | :---: | :---: |
| 1 | Brickwork 001 in plan | S | Sunny |
| 2 | Top of culvert 097 under excavation | NE | Sunny |
| 3 | Top of culvert showing culvert 110 being exposed | NE | Sunny |
| 4 | Culvert 110 in section | SE | Sunny |
| 5 | Culvert 110 in section and plan | SE | Sunny |
| 6 | Working shot at 180.000-175.000 chainage 180.000 | SE | Sunny |
| 7 | Culvert 097 | NE | Sunny |
| 8 | Culvert 097 | NE | Sunny |
| 9 | Culvert 097 | NE | Sunny |
| 10 | Working shot at chainage 150.000 | SE | Sunny |
| 11 | NE facing section at chainage 170.000 | NE | Sunny |
| 12 | Top of wall 109 under excavation | SE | Sunny |
| 13 | NE facing section at 155.00 | NE | Sunny |
| 14 | NE facing section at 155.00 | NE | Sunny |
| 15 | Chainage 155.000-150.000 | NW | Sunny |
| 16 | NE facing section at 150.000 | NE | Sunny |
| 17 | NE facing section at 150.000 | NE | Sunny |
| 18 | Blue grey subsoil at chainage 150.000-145.000 | NE | Sunny |
| 19 | General shot of excavation from chainage 145.000 | NE | Sunny |
| 20 | General excavation shot of walls 011 and 009 | SE | Sunny |
| 21 | Shot of arch 010 and wall 009 and made ground | S | Clear |
| 22 | Shot of arch 010 and wall 009 and made ground | S | Clear |
| 23 | Shot of arch 010 and wall 009 and made ground | S | Clear |
| 24 | Shot of arch 010 wall 009 and 011 | SE | Clear |
| 25 | Shot of arch 010 wall 009 and 011 | E | Clear |
| 26 | Shot of arch 010 wall 009 and 011 | SE | Clear |
| 27 | General shot of trench excavation | NE | Clear |
| 28 | Shot of arch 010, wall 009 and 011 | SE | Clear |
| 29 | General shot of masonry 013 | W | Clear |
| 30 | General shot of vegetation strip | N | Clear |
| 31 | Shot of Masonry 013 | NW | Clear |
| 32 | Details of masonry 013 and concrete foundations 012 | W | Clear |
| 33 | Detail of masonry 013 showing render | W | Clear |
| 34 | General shot of trench excavation | NW | Clear |
| 35 | General shot of trench excavation | NW | Clear |
| 36 | Shot of wall 009 and concrete 018 and 020 | SW | Sunny |


| Shot | Description | From | Conditions |
| :---: | :---: | :---: | :---: |
| 37 | Shot of wall 009 and concrete 018 and 020 | SW | Clear |
| 38 | Shot of wall 009 and concrete 018 and 020 | SW | Clear |
| 39 | Shot of excavated cable within trench | SW | Clear |
| 40 | Shot of concrete deposit 018 | SW | Clear |
| 41 | Shot of masonry 009 and concrete 018 and 020 and make up of deposits under modern car park | SW | Clear |
| 42 | Shot of 018 and wall 020 | S | Clear |
| 43 | Shot of west FACING section of excavated trench showing sequence of deposits | W | Clear |
| 44 | Shot of sand 005 at limit of excavation | W | Clear |
| 45 | Shot of vegetation strip along line of excavation | N | Clear |
| 46 | Shot of vegetation strip along line of excavation | N | Clear |
| 47 | Shot of vegetation strip along line of excavation showing brick and concrete deposits in plan 009 and 020 | N | Overcast |
| 48 | Shot of vegetation strip along line of excavation showing brick and concrete deposits in plan 009 and 020 | W | Overcast |
| 49 | Shot of 009 in plan | SE | Overcast |
| 50 | Shot of 009 in plan | E | Overcast |
| 51 | Working shot of excavation within trench | SE | Overcast |
| 52 | Shot of excavation through masonry 009 | NW | Overcast |
| 53 | Shot of excavation through masonry 009 | E | Overcast |
| 54 | Shot of reception tank | E | Overcast |
| 55 | General working shot in chainage 195.000-190.000 | NE | Sunny |
| 56 | General working shot in chainage 195.000-190.000 | NE | Sunny |
| 57 | Wall 099 general | NE | Sunny |
| 58 | Wall 099 general | NE | Sunny |
| 59 | Wall 100 general | NE | Sunny |
| 60 | Wall 100 general | NE | Sunny |
| 61 | Wall 100 general | NE | Sunny |
| 62 | Wall 100 general | NE | Sunny |
| 63 | Wall 100 general | SW | Sunny |
| 64 | Wall 100 general | SW | Sunny |
| 65 | Wall 100 general | SW | Sunny |
| 66 | Mid-excavation revealing brick wall 082 | SE | Sunny |
| 67 | Chainage 130.000-125.000 | N | Sunny |
| 68 | 082 in SE facing section | NE | Sunny |
| 69 | N facing section of 125.000 | S | Sunny |
| 70 | Stripping and leveling course of culvert excavation | S | Sunny |
| 71 | SE facing section of embankment running length of excavation showing spread of bottle tops | NE | Sunny |
| 72 | SE facing section of embankment running length of excavation showing spread of bottle tops | NE | Sunny |
| 73 | Detail of frog marked brick |  | Sunny |
| 74 | Mid-excavation of chainage 125.000-120.000 showing division between natural sand subsoil and disturbed ground | S | Sunny |
| 75 | Mid-excavation of chainage 125.000-120.000 | NW | Sunny |
| 76 | Mid-excavation of chainage 120.000-115.000 | NE | Sunny |


| Shot | Description | From | Conditions |
| :---: | :---: | :---: | :---: |
| 77 | Mid-excavation of chainage 120.000-115.000 | NE | Sunny |
| 78 | Mid-excavation of chainage 120.000-115.000 | S | Sunny |
| 79 | Mid-excavation of chainage 120.000-115.000 | S | Sunny |
| 80 | Chainage 115.000-110.000 showing cut 036 | E | Sunny |
| 81 | SE facing section of embankment | NE | Sunny |
| 82 | Chainage 110.000-105.000 showing natural sand along SE section | NE | Sunny |
| 83 | Chainage 110.000-105.000 showing natural and 037 | NE | Sunny |
| 84 | Chainage 110.000-105.000 east SE facing section mid-excavation | N | Sunny |
| 85 | Chainage 110.000-105.000 mid-excavation | NE | Sunny |
| 86 | NE facing section chainage 110.000-105.000 | NE | Sunny |
| 87 | 038 in plan | Vertical | Sunny |
| 88 | 038 in plan | N | Sunny |
| 89 | 038 and 040 in plan | NE | Sunny |
| 90 | 040 in plan | NE | Sunny |
| 91 | 040 in plan | E | Sunny |
| 92 | SE facing section chainage 110.000-105.000 | E | Sunny |
| 93 | Mid-excavation E facing section chainage 110.000-105.000 | NE | Sunny |
| 94 | Mid-excavation chainage 110.000-105.000 | NE | Sunny |
| 95 | Mid-excavation chainage 110.000-105.000 | N | Sunny |
| 96 | Mid-excavation chainage 110.000-105.000 | NW | Sunny |
| 97 | NE facing section chainage 110.000-105.000 | NW | Sunny |
| 98 | Chainage 95.000-90.000 under excavation | E | Sunny |
| 99 | Chainage 80.000-75.000 pre-excavation | E | Sunny |
| 100 | NE facing section chainage 80.000 | E | Sunny |
| 101 | SE facing section mid-excavation chainage 80.000-75.000 | NE | Sunny |
| 102 | NE facing section mid-excavation chainage 80.000-75.000 | N | Sunny |
| 103 | Leveling operations | N | Sunny |
| 104 | SE facing section of pit 047 | SE | Sunny |
| 105 | SE facing section of pit 047 | SE | Sunny |
| 106 | Leveling operations | NW | Sunny |
| 107 | Pit 047 in section | SE | Sunny |
| 108 | NE facing section chainage 75.000-70.000 | NW | Sunny |
| 109 | NE facing section chainage 75.000-70.000 | NW | Sunny |
| 110 | Pre-excavation chainage 70.000-65.000 | NE | Sunny |
| 111 | SE facing section chainage 70.000-65.000 | S | Sunny |
| 112 | NE facing section chainage 65.000 | NE | Sunny |
| 113 | NE facing section chainage 65.000 | NE | Sunny |
| 114 | Pre-excavation chainage 65.000-60.000 | E | Sunny |
| 115 | Mid-excavation chainage 65.000-60.000 | NW | Sunny |
| 116 | NE facing section chainage 60.000 | NW | Sunny |
| 117 | NE facing section 60.000-55.000 | NW | Sunny |
| 118 | SE facing section chainage 55.000-50.000 | SE | Sunny |
| 119 | NE facing section chainage 50.000 | NW | Sunny |


| Shot | Description | From | Conditions |
| :---: | :---: | :---: | :---: |
| 120 | Mid-excavation of chainage 50.000-45.000 showing concrete surface and brickwork | NW | Sunny |
| 121 | Mid-excavation of chainage 50.000-45.000 showing concrete surface and brickwork | NW | Sunny |
| 122 | NE facing section 50.000-45.000 with concrete visible in section | NW | Sunny |
| 123 | SW facing section chainage 50.000-45.000 with brickwork and concrete surface visible | W | Sunny |
| 124 | NE facing section chainage 170.000 showing concrete slab | NW | Sunny |
| 125 | Confluence chamber looking north | S | Sunny |
| 126 | Existing culvert at south end of confluence chamber | W | Sunny |
| 127 | Leveling operations at south end of excavation | NW | Sunny |
| 128 | Confluence chamber west side | E | Sunny |
| 129 | Confluence chamber looking north | S | Sunny |
| 130 | Leveling operations at south end of excavation | NE | Sunny |
| 131 | Confluence chamber west side | E | Sunny |
| 132 | Confluence chamber west side | NE | Sunny |
| 133 | SE facing section chainage 40.000-35.000 | E | Sunny |
| 134 | Mid-excavation of chainage 40.000-35.000 | NE | Sunny |
| 145 | View along route of culvert excavation from midpoint looking south | S | Sunny |
| 136 | View along route of culvert excavation from midpoint looking north | S | Sunny |
| 137 | View along route of culvert excavation from midpoint looking north | S | Sunny |
| 138 | View along route of culvert excavation from midpoint looking north | S | Sunny |
| 139 | SE facing bank at chainage 35.000-30.000 | NE | Sunny |
| 140 | Leveling operations at south end of excavation | NW | Sunny |
| 141 | Worked cylindrical stone within wall at south end of excavation | SW | Sunny |
| 142 | Test pit against upstanding brick wall south end of excavation | S | Sunny |
| 143 | Excavation of test pit | SW | Sunny |
| 144 | NE facing section chainage 30.000 | NW | Sunny |
| 145 | Test pit excavation at southern end of culvert excavation | SW | Sunny |
| 146 | Leveling operations at southern end of culvert excavation | NW | Sunny |
| 147 | Mid-excavation of chainage 30.000-25.000 | W | Sunny |
| 148 | Mid-excavation of chainage 30.000-25.000 | SE | Sunny |
| 149 | NE facing section 180.000-185.000 | NW | Sunny |

## APPENDIX 3: Drawings Register

| Drawing <br> No | Sheet No | Description | Plan/Section | Scale |
| :---: | :---: | :--- | :---: | :---: |
|  |  |  |  |  |
| 1 | 3 | NE facing section at chainage 180.000 | S | $1: 20$ |
| 2 | 3 | NE facing section at chainage 175.000) | S | $1: 20$ |
| 3 | Day book <br> sketch | SE facing section at chainage 180.000-175.000 | S | $1: 20$ |
| 4 | Day book <br> sketch | Plan of chainage 180.000-175.000 | P | $1: 20$ |


| $\begin{gathered} \hline \text { Drawing } \\ \text { No } \end{gathered}$ | Sheet No | Description | Plan/Section | Scale |
| :---: | :---: | :---: | :---: | :---: |
| 5 | 1 | NE facing section at chainage 170.000 | S | 1:50 |
| 6 | 1 | NE facing section at chainage 165.000 | S | 1:50 |
| 7 | 1 | NE facing section at chainage 155.000 | S | 1:20 |
| 8 | 2 | NE facing section at chainage 135.000 | S | 1:50 |
| 9 | 2 | Plan of brick foundations within chainage 135.000- $130.000$ | P | 1:50 |
| 10 | 2 | SE facing section at chainage 115.000-110.000 | S | 1:20 |
| 11 | 2 | SE facing section at chainage 110.000-105.000 | S | 1:20 |
| 12 | 3 | NE facing section at chainage 120.000 | S | 1:50 |
| 13 | 3 | NE facing section at chainage 110.000 | S | 1:50 |
| 14 | Day book sketch | SE facing section at chainage 105.000-100.000 | S | 1:20 |
| 15 | 1 | NE facing section at chainage 95.000 | S | 1:50 |
| 16 | 1 | SE facing section at chainage 95.000-90.000 | S | 1:20 |
| 17 | 1 | NE facing section at chainage 80.000 | S | 1:50 |
| 18 | 2 | SE facing section at chainage 65.000-6.000 | S | 1:20 |
| 19 | 2 | NE facing section at chainage 65.000 | S | 1:50 |
| 20 | 2 | SE facing section at chainage 70.000-65.000 | S | 1:100 |
| 21 | 3 | NE facing section at chainage 60.000 | S | 1:50 |
| 22 | 3 | SE facing section at chainage 55.000-50.000 | S | 1:20 |
| 23 | 3 | NE facing section at chainage 50.000 | S | 1:50 |
| 24 | 3 | NE facing section at chainage 45.000 | S | 1:50 |
| 25 | 4 | NE facing section at chainage 35.000 | S | 1:50 |
| 26 | 4 | NE facing section at chainage 30.000 | S | 1:50 |
| 27 | 4 | Plan of chainage 200.265-205.265 | P | 1:50 |
| 28 | 4 | SW facing section chainage 205.265 | S | 1:50 |
| 29 | 4 | S facing section at chainage 210.265 | S | 1:20 |
| 30 | 4 | SE facing section at chainage 20.000-15.000 | S | 1:20 |
| 31 | 5 | SE facing section at chainage 25.000-30.000 | S | 1:50 |
| 32 | 5 | NE facing section at chainage 25.000 | S | 1:50 |
| 33 | 5 | NW facing section at chainage 10.000-15.000 | S | 1:50 |
| 34 | 5 | NE facing section at chainage 05.000 | S | 1:50 |
| 35 | 6 | Plan of chainage 110.000-65.000 | P | 1:50 |
| 36 | 7 | Plan of chainage 165.000-130.00 | P | 1:50 |
| 37 | 8 | Plan of chainage 130.00-00.000 | P | 1:50 |


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Fig. 4 Excert from Ist Edition Ordnance Survey Map, 1854


Fig. 5 Excert from 2nd Edition Ordnance Survey Map, 1893-94


