

York Mint Yard, *City of York*

Archaeological Watching Brief on Engineering Trial Pits:

May-June 2012

Data Structure Report

for

City of York Council



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edited by Tom Addyman

Contents

Executive Summary

1. Introduction

- i. General
- ii. Setting

2. Brief Historical summary

3. Methodology

- i. General
- ii. Trenches 1 and 2
- iii. Trenches 3 and 4

4. Results

- i. Trench 1
- ii. Trench 2
- iii. Trench 3
- iv. Trench 4

5. Artefact Analysis

- i. General
- ii. Bone – with David Henderson
- iii. Glass – with Thomas Addyman
- iv. Ceramic – with Thomas Addyman
- v. Fe

6. Summary and Discussion

7. Mitigation and recommendations

Acknowledgements

Bibliography

Appendices

<i>Appendix A</i>	<i>Context Register</i>
<i>Appendix B</i>	<i>Photographic Register</i>
<i>Appendix C</i>	<i>Drawing Register</i>
<i>Appendix D</i>	<i>Finds Register</i>
<i>Appendix E</i>	<i>Photographic Thumbnails</i>

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York Mint Yard

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Executive Summary

An archaeological watching brief was undertaken during preliminary works associated with the renovation of York Explore, the City of York Central Library building. In preparation for the works associated with the upstanding library structure, two 1m² engineering test pits were excavated adjacent to the eastern side of the building, and a further two within the library itself. These were monitored under archaeological watching brief conditions.

Very limited in scale, the test pits were excavated by hand and machine to a depth of 2.15m outside the library, and up to 1m inside. Trenches 1 and 2 (the exterior trenches) were restricted by the presence of an electricity cable and the foundation cut for the existing library structure. With one exception the deposits not affected by these intrusions seemed to consist wholly of one homogenous deposit of made-ground. At higher level in Trench 2 fragmentary structural remains were encountered, whilst an interesting and valuable assemblage of finds was recovered *ex situ* within the made-ground deposit. Artefacts recovered included a carved fragment of bone, a decorated Roman *terra sigillata* (Samian) vessel rim and a fine sherd of Roman glassware. Trenches 3 and 4 within the library itself failed to yield any archaeological material.

A record of the evaluation has been deposited with the Online Access to the Index of Archaeological Investigations (OASIS) website hosted by the Archaeological Data Service (OASIS ID addymanal-127131). The project has been assigned City of York Council Historic Environment Record (CYCHER) number EYO4634.

1. Introduction

i. General

Addyman Archaeology were commissioned by City of York Council (contact John Oxley, City of York Council Archaeologist) to undertake a watching brief during the excavation of four engineering test pits within and adjacent to York Explore, the City of York Central Library. The archaeological works were arranged through and closely coordinated with Bisset Adams, Architects (contact, Adam Sturdwick, Associate Director). The site work was undertaken by City of York Council staff.

The archaeological monitoring of Trenches 1 and 2 was undertaken by Ross Cameron over two days on the 2nd and 10th of May 2012. Kenneth Macfadyen monitored the opening of Trenches 3 and 4 within the interior of York Central Library on the 16th June 2012.

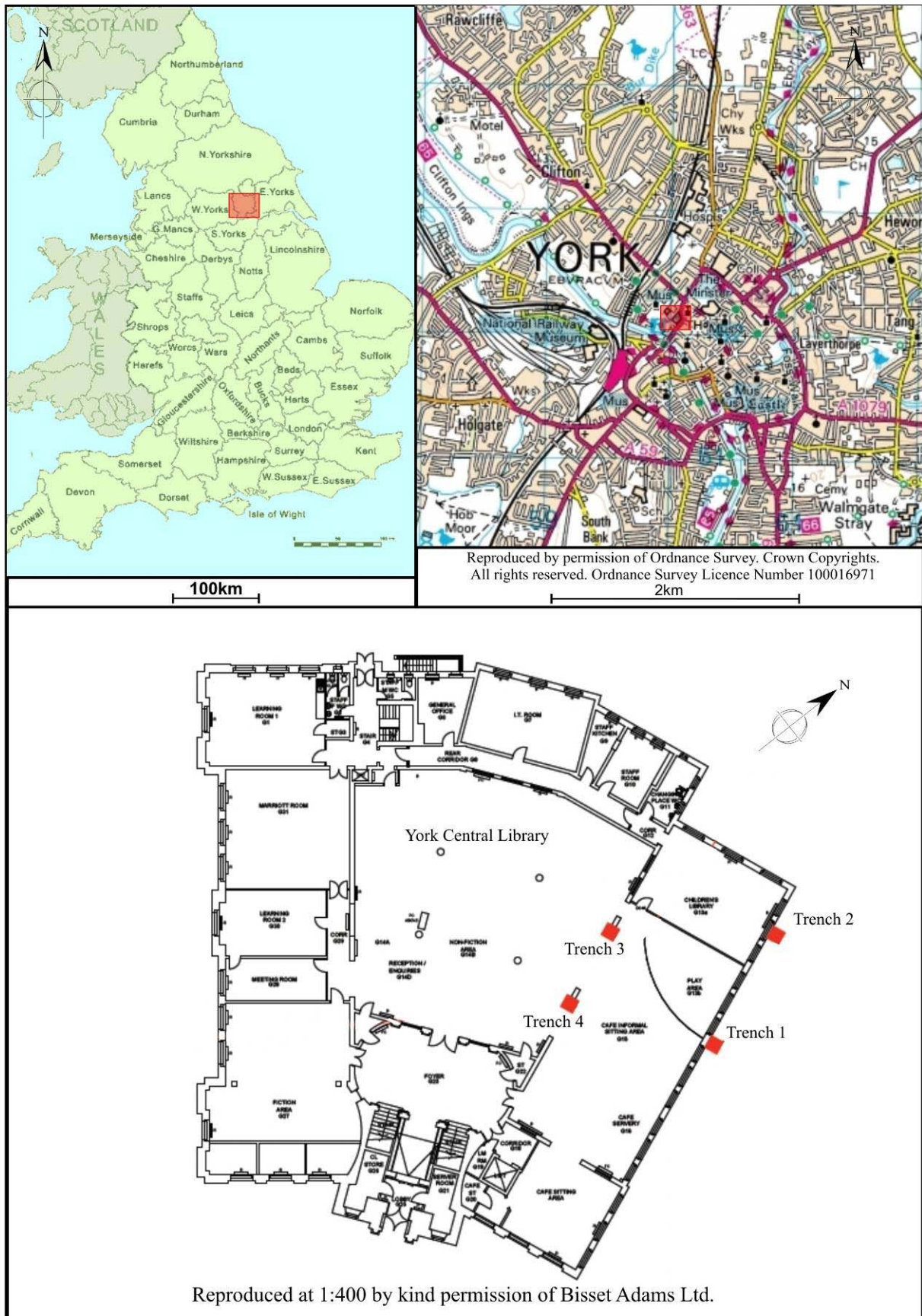


Figure 1 Site Location

ii. *Setting*

The proposed development area is located in the heart of the historic City of York, within the area known historically as Mint Yard. Centred on NGR SE 59960 52127, Trenches 1 and 2 were excavated in the small lane running along the NE side of the York Central Library, between the library and the adjacent Council Offices, while Trenches 3 and 4 were excavated within the interior of the library itself (see *figure 1*).

The upstanding multi-period city walls lie immediately to the N and W, while the ruins of the 13th century St. Leonard's Hospital are also in close proximity to the SW. Although narrow, the tarmac-surfaced lane in which the excavations took place is relatively busy with council traffic and office staff. Both Test Pits were located immediately against the upstanding library wall and did not impede upon the usage of the lane. Those excavated within the library were shielded from the public by a temporary partition.

The underlying geology is mixed and variable. Across the development area the underlying bedrock is formed from sandstone of the Sherwood Sandstone Group. This formed approximately 227 to 256 million years ago during the Triassic and Permian Periods and indicate a local environment dominated by rivers and watercourses. The superficial deposits in this area are a mixture of Till from the Devensian – Diamictic Periods and Glacioclastic Clay and Silt, all of which formed 2 million years ago in Ice Age conditions.¹

2. *Brief Historical Summary*

The development of the area around the York Central Library, known as the Mint Yard, bounded by the city's walls, Museum Street, and St Leonard's Place, has been well documented in the Royal Commission on Historical Monuments England inventory volumes for the city of York. These volumes have descriptions of general changes to the area, as well as detailed examinations of most particular features. See the following: vol. I *Eboracum: Roman York* (RCHME: 1962), vol. II *The Defences* (RCHME: 1972) and vol. III *The central area* (RCHME: 1981). Since early 19th century antiquarian excavations on the Library Lawn areas around the Roman walls, there have been many excavations, reports and academic articles on this area. However, there have been only very limited reporting of archaeological remains for the area now under the library itself, as this was occupied by buildings from the early 19th century. In 2012, Simpson & Brown Architects with Addyman Archaeology began writing a conservation management plan with a detailed gazetteer of the whole Mint Yard area for the City of York Council.² This was in consultation draft stage at time of writing. The sources mentioned above have been used for the conservation plan, and it is on this previous research that this summary history based. See the conservation plan for further information.

The area around the library was the SW corner of the Roman legionary fortress of *Eboracum*, first occupied c.71 AD. Situated on high ground above the River Ouse, navigable from the sea, the fortress was also at the crossing of two major Roman roads. The fortress was rebuilt on the same footprint, with timber palisades erected on earthworks, following attack and damage until it was finally rebuilt in stone probably in the early 2nd century AD. The physical evidence of the Roman occupation of the site is clear in the standing remains of the Roman walls around the library. Within the walls existed the intervallum road – this must run beneath Library Lawn on the SW side of the library and, turning the angle to the NE, must run beneath the north-western side of the library. Within the intervallum road in this area of the fortress lay blocks of barracks buildings. The only recorded archaeological find within the footprint of the library was during the excavations for the construction of the present library building, c.1925 when professor Stewart Miller recorded parts of a Roman timber structure – an oak

¹ <http://www.bgs.ac.uk/opengeoscience/> - 24/05/12

² 2012 Addyman Archaeology *Mint Yard, York Conservation Management Plan*

sill beam and a series of substantial vertical posts thought to represent parts of a barrack range of the first phase of Roman occupation (RCHME, 1962).

Following the departure of the Romans in the early 5th century, the fortress was occupied in the Anglian period, evidenced by a new tower to the NW of the library, and the town became an important ecclesiastical and royal centre. York was taken by Viking invaders in 866 AD, again making use of the river. It became the capital of the Viking kingdom of Jorvik in the N of England. There is very little obvious physical evidence of the Viking occupation on the site, but they refortified the crumbling Roman defences by building an earth rampart crowned with timber defences.

From before the Norman Conquest in 1066, the area round the library had become a monastic-hospital, initially dedicated to St Peter, and later St Leonard. It became one of the largest institutions of its kind in medieval England, and certainly by the 13th century, the hospital extended over the entire site of the present library, bounded by Petergate to the NE and the line of the present day Museum Street to the SE. While the position of the infirmary range is well established, erected against the line of the defences along the SW perimeter and running beneath library lawn, other parts of the medieval complex are far less well understood. There were buildings further to the NE, some of which remain incorporated within the Theatre Royal on St Leonard's Place, but knowledge of the medieval topography of the central part of the precinct, from St Leonard's Place to the library area, is lacking. A plan drawn from historical sources, produced by Benson (1930), is highly speculative but it serves to illustrate the likelihood that the library site may have been occupied by one or more of a number of documented buildings.

The library is bounded by an alley to the NW. This is itself bounded by a part-ruinous wall formed of substantial Magnesian Limestone blocks, evidently of medieval date, that had retained the inner rampart and may have defined the hospital perimeter. At one point this walling is interrupted by a structure whose surviving lower parts cut into the rampart; whether this was a latrine or part of a larger structure extending SE beneath the site of the library (or both) is presently unknown. During Time Team's and York Archaeological Trust's excavations beneath Library Lawn (1999-2004) parts of a major stone-built drain were revealed beneath the infirmary range, aligned SW/NE, and thought likely to date to the 13th century. This had clearly extended further N – approximately along the line of the principal frontage of the existing library building.

Also, following the Norman Conquest, the city was refortified, and in the area round the library, the Viking ramparts were increased in height, with new timber defences, and a ditch. In the late 13th and early 14th centuries, the timber walls were replaced with the crenellated masonry walls that still remain.

Following the dissolution of the monasteries, the St Leonard's hospital buildings were occupied both by the Royal Mint, sporadically until 1629, and by various aristocratic households, and finally removed in 1642. As the earliest maps date from this period, especially Speed's map of 1610, it is from this event that the area takes its name.

Following the acquisition of the former precinct of the hospital by the city in 1675, it was increasingly sub-divided and leased to a succession of private tenants. 18th century maps show that the area of the library was used either as gardens for private houses, or for cultivation into the last quarter of the century. A large square plan structure appears on a 1788 city map, the 2nd edition of Drake's 1736 plan, on the west side of a lane that itself seems to appear earlier in the century. This lane is the predecessor of the existing lane bounding the NE side of the library but is on a slightly different alignment and lying a little further to the NE/E (it was realigned in the 1830s – see below).

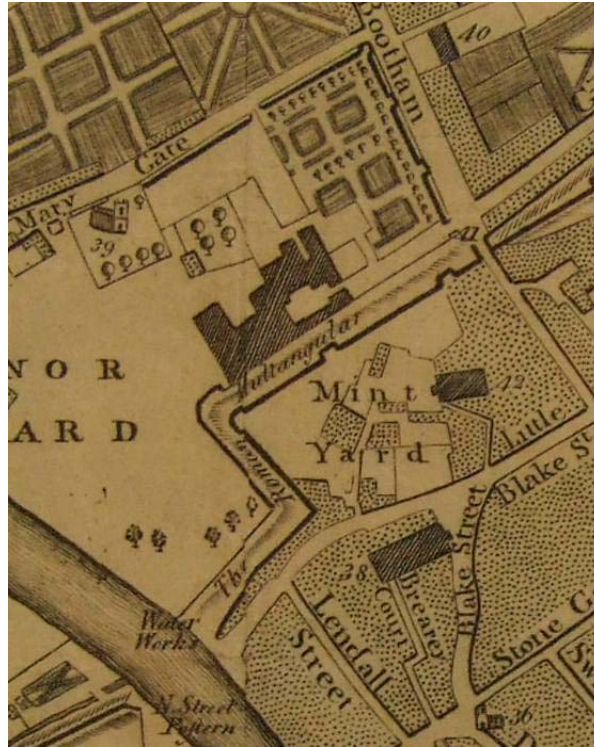


Figure 2 1788 plan, from the 2nd edition of Drake, published by Wilson & Spence. This is White's plan of 1785 with slight alterations. Courtesy of York Explore

From the last quarter of the 18th century, the Mint Yard area, the site of the present library, developed piecemeal without much overall planning. Maps show houses with gardens, stables, and a fire house, accessed through lanes and yards by the 1820s, a particularly large stables occupying much of the present footprint of the present library (Figure 3).

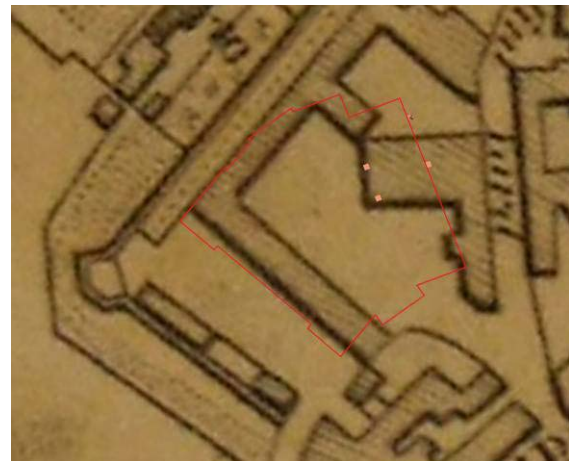


Figure 3 1822 Baines' map of York. Courtesy of York Explore (detail with red outline of the library indicated)

The building on the site are shown in considerable detail on a plan of 1831, transcribed and annotated by George Benson (1919, Figure 12) – Figure 4. This shows the library site to have been mainly occupied by two large stables or livery yards – Mrs. Simpson's at the SW side of the area, also including the Library Lawn area, and Mt Ettridge's whose yard was entered from the area of the present library forecourt.

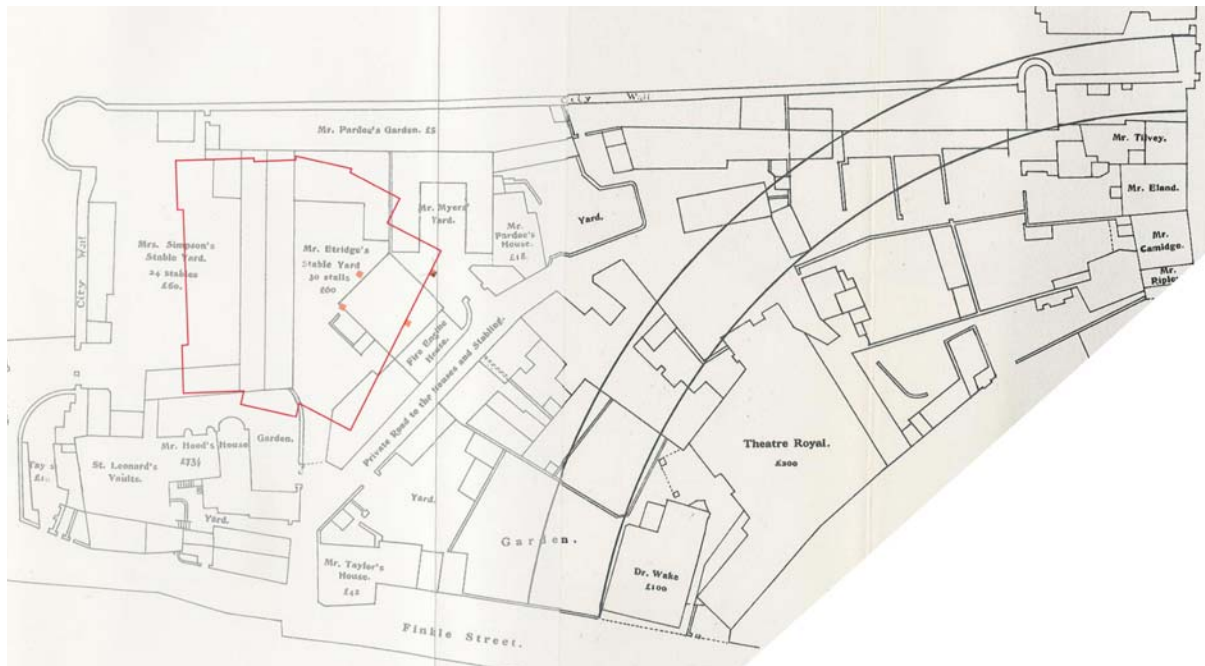


Figure 4 Plan of the Mint Yard area, 1831, as redrawn by Benson

At the end of the 1820s, the city corporation decided to maximise its income from the site by laying out a crescent to attract speculative high value housing. The crescent followed fashions set in Bath and London, and the large terrace of houses, St Leonard's Place; following clearance of the site in the mid 1830s the terrace was eventually completed by the early 1840s. The 1831 plan shows the proposed route of the new St Leonard's Place.

While many of the structures on the east side of the library site were demolished at this stage, the stables yards occupying the western parts mostly survived. It is clear that the lane must have been realigned to better accommodate the gardens and stables buildings behind the new terrace; a new stables range was erected on the west side of the realigned lane. The new arrangement is most clearly shown on the first edition Ordnance Survey of the early 1850s, and in a panoramic view by Whittcock of the mid 1850s. Part of the SW stables yard (the Library Lawn area) was taken over by the Yorkshire Philosophical Society in the mid 1840s. The remainder of the stables complex survived in use until the building of the library, begun in the 1920s.



Figure 5 1849-51 1st edition Ordnance Survey. Courtesy of City of York Council (www.york1852.org) (detail with red outline of the library indicated)



Figure 6 Detail from Whittcock's panorama of York of the mid 1850s³

3. Methodology

i. General

Any soil deposits encountered were recorded as per standards established by Addyman Archaeology and The Institute for Archaeologists (*IfA*). A comprehensive digital photographic record of progress was maintained throughout the project.

Weather conditions during the watching brief were variable with bright sunshine on day 1, contrasting with heavy persistent rain during the second visit to site.

ii. Trenches 1 and 2

Upon arrival on the site, Council personnel had removed the overlying tarmac road surface and much of the bottoming material for this to a depth of c.0.15m. Excavation was to be undertaken by hand initially, with subsequent soil removal to a depth of c.1.75m completed with a 1.8 tonne mini-digger. Trench 1 was hand-excavated to a depth of 0.9m before the mechanical excavator took over and reduced this to c.1.75m under close archaeological supervision. In Trench 2, structural remains were noted at a depth of c.0.3m. These were recorded and subsequent excavation in Trench 2 continued to a similar depth of c.1.75m through use of the mini digger.

Following this initial exercise it was decided by the structural engineer that both Trench 1 and 2 required further excavation as they had not revealed the full extent of the upstanding library foundations. In such constrained space, the 1.8 tonne mechanical excavator was unable to excavate to the required depth and further soil removal was undertaken by hand. Both Trenches had been shored with interlocking steel sections and wooden struts to allow safe entry and it was agreed Addyman Archaeology personnel would complete as much of the soil removal as possible given the conditions. Now containing a quantity of water, both Trenches were reduced by some 0.2m, before it was agreed

³ Benson, G. 1925 *An account of the city and county of the city of York: from the reformation to the year 1925; being a continuation of Later mediaeval York* (York: Cooper and Swan)

the archaeologist would place a test slot some 0.2m² through the base of each trench, subsequently allowing the Council team to complete the excavations. In Trench 1 the slot reduced the depth to 2.15m while in Trench 2, the total was 2.05m. The ground beneath this was investigated by the insertion of a metal probe to a depth of c.0.7m in both trenches. In neither trench was any firm material encountered by the probe. All spoil and sludge removed from the excavations was systematically searched for artefacts and archaeological material.



*Plate 1 Trench locations looking NW across site
(Photograph 004)*



*Plate 2 General view of site looking S
(Photograph 029)*

iii. Trenches 3 and 4

Trenches 3 and 4 were excavated within the library itself and as a result much of the excavation consisted of the removal of large blocks of reinforced concrete with a pneumatic drill. Each opened at the base of a load-bearing pillar, Trenches 3 and 4 were almost wholly occupied by the foundations for the library building and the concrete was removed by Council personnel.

The iron foundations of the pillars themselves were revealed at a depth of c.0.5m. Consequently the team hand excavated a slot along the edge of the concrete foundation upon which the pillar was sat in order to assess the depth of the underlying concrete foundations themselves. These slots were excavated to a final depth of c.1.3m, at which point, in line with the methodology adopted in Trench 1 and 2, an iron probe was pushed into the subsoil to a final overall depth of c.2m.

4. Results

i. Trench 1

Trench 1 measured 1m² and was excavated to a depth of 2.15m immediately adjacent to the upstanding library wall.

Following removal of the upper modern road deposits, (103) was revealed to be a deposit of mottled and mixed dark black brown and yellow white brown gritty clay. A construction cut [102] for the upstanding library wall was vaguely visible within (103), although at this stage this was expected to be further from the wall, perhaps encompassing the whole of Trench 1. However, as excavation continued, [102] became clearer at a mere 0.4m from the wall; the cut was infilled with (105) - a deposit very similar to (103) and subsequent deposit (104).

Below (103), (104) comprised essentially the same make-up of mottled clay deposits, although had a much cleaner appearance and from which was recovered a greater quantity of in bones and ceramics. No archaeological features were noted in this, although obviously the space constraints and the issue of depth made it impossible to say that none existed with absolute certainty.



Plate 3 Working shot showing excavation of Trench 1

A large number of artefacts were recovered from Trench 1, including bone, glass and ceramics. Of particular note was a small fragment of carved bone (SF003, *plates 13-14*) and a rim fragment from a decorated vessel of Roman samian ware (SF009, *plate 17*). The artefacts suggest a very mixed, yet relatively homogenous deposit, with no features recorded during excavation. As much of Trench 1 was machine excavated, it is also unclear which artefacts came from (105), the 1930s fill of the construction cut, and which came from (103/104). During excavation all were noted as coming from (103) and (104), although a degree of caution must be exercised here. Likewise necessary use of a mechanical excavator to dig the trenches meant that the bucket scraped up the sides of the trench, possibly collecting artefacts from upper deposits and allowing them to be recorded as from the lowest deposits of the trench. In addition the wet and difficult conditions as hand excavation resumed may well skew the artefactual record towards the larger, more easily notable objects at the base of the Trench.



Plate 4 Machine excavation of Trench 1 looking S (Photograph 017)

Excavation in Trench 1 ceased when the base of the slightly stepped foundation was encountered at a depth of 2.15m

ii. Trench 2

Like Trench 1, Trench 2 measured 1m² and was slightly shallower with a final depth of 2.05m.

After removal of the modern 20th century road deposits (201), (202) was revealed to be a moderately compact white and light brown gritty mortar-rich sand, likely to be a landscaping and demolition deposit. This directly overlay the vestigial remnants of a brick structure {203} with associated brick flooring {209}. These were hand-made, orange red, unfrosted bricks of late 18th to early 19th century character.

This structure was clearly truncated by the construction cut [204] for the upstanding library walls and was aligned NE-SW, with a return running to the NW. This is clearly a completely different alignment to the neighbouring structures and likely represents the vestigial remains of earlier buildings on the site prior to the development of the library building.

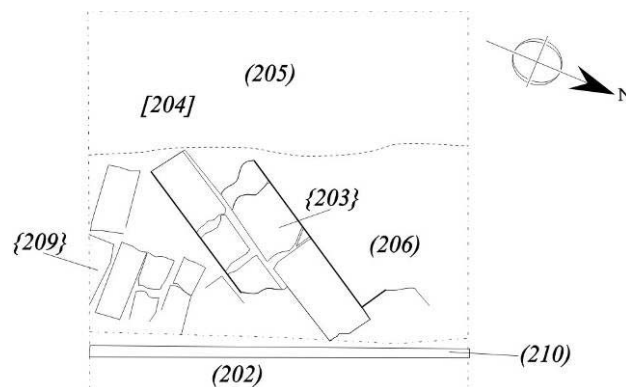


Figure 7 Plan of {203/209} in Trench 2 (Drawing 001)



Plate 5 {203} and {209} in situ looking SE (Photograph 23)

Beneath {203/209} a deposit of dark brown silty clay with a silky feel and slightly mottled appearance was recorded as (206). Very similar to deposits (103) and (104) recorded in Trench 1, it is likely these are the same mixed deposits from a major landscaping event. Lying beneath (206), (208) is also likely to be the same as (206) yet the two were separated by (207), a thick band of very clean crumbling limestone and lime mortar. This is likely a lens within one homogeneous deposit.



Plate 6 Post-excavation view of Trench 2 looking NNW and showing the SSE facing section (Photograph 044)



Plate 7 Post-excavation view of Trench 2 (Photograph 062)

iii. Trench 3

Measuring 1.15m W-E by 1m N-S, Trench 3 was excavated to a final depth of c.1.3m, although this was not achieved across the whole of the Trench.

The trench was excavated in order to assess the depth of the foundations for the upstanding pillar to the N and in turn the earlier wall foundation upon which it sat.



Plate 8 SE facing section of Trench 3 (Photograph 076)

Removal of the modern floor surface {301} was completed by the contractor prior to arrival on site and revealed a spread of reinforced concrete which was removed by use of a pneumatic breaker. This revealed the Fe structure of the upstanding pillar to begin at a depth of 0.5m below the floor surface. The Fe pillar and associated concrete were recorded as {302}. {302} rests directly atop (plate 8) a NNW-SSE aligned foundation wall {303}



Plate 9 SE facing section of Trench 3 (Photograph 084)



Plate 10 Post excavation view of slot through (304) (Photograph 085)

Excavation along the line of this wall revealed a deposit of mixed and mottled mid brown gritty silt abundant in stony inclusions and fragments of lime mortar – (304). Excavated in a slot to a depth of 1.3m below the floor level, (304) revealed no traces of archaeological material. It was unclear whether this deposit had been built up against the foundation {303}, or whether {303} had been poured into place against shoring, leaving the clean straight edge visible during excavation.

iv. Trench 4

Trench 4 essentially mirrored Trench 3 in being essentially archaeologically sterile and composed almost entirely of concrete.

Removal of the floor surface {401} revealed the same thick deposit of concrete encountered in Trench 3. This was removed by a pneumatic drill and proved to follow the same pattern as Trench 3 with a concrete deposit {402} placed around an Fe load-bearing pillar and directly atop a concrete wall foundation {403} at a depth of c.0.5m below floor level (*plate 11*).



Plate 11 The base of pillar {402} atop concrete foundation {403} (Photograph 093)

In line with the instructions from the engineer there was no need to excavate further and unlike Trench 3, no excavation was undertaken into the deposit (404) abutting {403}.



Plate 12 Post-excavation view of trench 4 (Photograph 100)

5. *Artefact assessment*

i. General

Whilst the excavations at York Central Library were very limited in scope, they were notable for the depth of made-ground and volume of artefacts which were recovered. The small engineer test pits confirmed the library's position in an area of archaeological sensitivity and also confirms the advisability that further archaeological involvement will be required during any future excavations associated with this project.

The following provides an initial identification of some of the more interesting artefacts recovered, but other than analysis of the bone assemblage, no detailed assessment of the artefacts has taken place. All were recovered from what is clearly a very mixed and re-deposited series of contexts and cannot provide accurate dating evidence for any feature or site. Each artefact recovered is stable from a conservation point of view and shall be assessed in more detail, if required by the City Archaeologist, alongside any other artefacts recovered at the completion of Addyman Archaeology's involvement with the re-development of York Mint Yard.

ii. Bone (David Henderson)

The bones recovered were numerous and varied and it was felt these should be analysed immediately in order to assess whether any human remains were present.

The two trial trenches yielded a total of 72 fragments of faunal bone. Of these, 39 were identifiable to the level of species and skeletal element. All contexts appear to represent a similar very mixed spread of material, with ceramic finds from all periods from Roman to Post-Medieval, so very little information would be gained from a full analysis of the bone.

Four species were recorded, all domesticated. The individual counts were; 24 cattle, 11 sheep, three pig and one chicken. This distribution is likely to have been biased towards larger cattle bone by

having been hand-collected from machined spoil. Many of the bones showed signs of butchery, evidence was seen of splitting of carcasses, chopping of carcasses into joints and of removing meat from bones. All areas of the carcass were represented, from "waste" bones of the feet and skull, to more meaty parts, such as shoulder and chops.

The item of worked bone from (104), SF003, was made from the distal end of the right metacarpal of a sheep. The preservation and lack of surface patina suggests that it was not much handled, and perhaps broke during manufacture.



Plate 13 Detailed view of SF003



Plate 14 Detailed view of SF003

iii. Glass

The assemblage of glass recovered from the trenches at York Explore was small and on the whole of limited archaeological interest. However, one fragment was of particular note. SF017 is a handle fragment of deep aqua glass from a free-blown Roman bottle and was recovered from the deep deposit of made-ground within Trench 2.



Plate 15 Detail of SF017



Plate 16 Detail of SF017

Artefacts recovered include:

- SF006 (104):
 - 8 fragments of free blown black glass wine bottle (dark olive colour) including 1 neck and 1 shoulder fragment. 18th century – c.1800
 - 1 fragment of aqua window glass. 18th century (?)
- SF012 (202):
 - 2 body sherds of black glass wine bottle (dark olive in colour). 18th century.
- SF017 (208):
 - Handle fragment of free blown Roman deep aqua glass (*plates 15-16*).

iv. Ceramic

The ceramic assemblage from the trial pits at York Explore are widely varied in both date and function, with 19th century fragments being found in the same context as medieval and even Roman examples. A preliminary assessment of the ceramic recovered is included.

Artefacts recovered include:

- SF001 (103):
 - 2 fragments of cream bodied trail decorated lead glazed slip ware. 18th century (*plate 19*).
 - 1 fragment of buff coloured stoneware. 19th century.
 - 3 fragments of dark brown glaze terracotta. Utilitarian. 19th century.
 - 1 pale green lead glazed grey stoneware. 19th century.
- SF005 (104):
 - 2 fragments of terracotta roof tile, 1 retaining part of squared peg hole. Medieval – 18th century.
 - 1 pipe stem. 19th century.

- 2 fragments of green glazed reduced ware. Medieval.
 - 1 fragment of lead glaze. Medieval.
 - 2 unglazed grey fragments. Burnished externally. Roman?
 - 1 rim fragment of lead glazed terracotta. 18th century?
 - 1 body sherd of *terra sigillata* (samian)
 - Fragment of high fired terracotta with dark lead glaze internally. 18th(?)-19th century)
 - Lip sherd of moulded tazza(?) dish (or possibly lid). Buff fabric tin glazed earthen ware with hand painted blue decoration to exterior. Mid 18th century.
- SF009 (104):
 - 4 fragments of terracotta roof tile. Medieval – 18th century.
 - 2 fragments of green, lead reduced ware. Medieval.
 - 1 rim sherd of white ware with evidence of annular gilding. 19th century.
 - 1 lead glazed red ware vessel. Medieval.
 - 1 miscellaneous red ware sherd. Part reduced. Medieval-17th century.
 - 1 rim sherd of *terra sigillata* (samian) ware with vine motif (plate 17).



Plate 17 Detail of ceramic – *terra sigillata* (samian) ware rim sherd from assemblage SF009

- SF010 (202):
 - 1 unidentified ceramic sherd. Reduced ware.
 - 1 fragment of green glazed reduced ware. Medieval – early post-medieval.
 - 1 buff fabric with pale green lead glaze internally.
- SF014 (208):
 - 3 fragments of terracotta roof tile, 1 retaining part of squared peg hole. Medieval – 18th century.
- SF018 (104):
 - 4 fragments of terracotta roof tile. Medieval – 18th century.
 - 1 fragment of narrow brick/thick tile/terracotta. Roman? Possibly medieval.
 - Miscellaneous unidentified brick fragments.

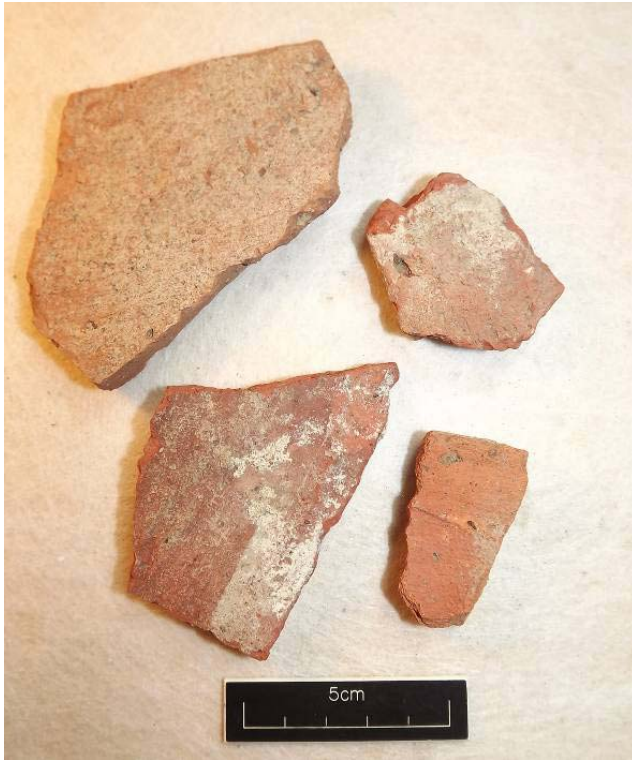


Plate 18 Ceramic roofing tiles from assemblage SF009



Plate 19 Ceramic sherds from assemblage SF005 (top) and SF001 (bottom)

v. *Metal*

Five large concreted masses of iron were recovered, four from Trench 2 and 1 from Trench 1. Those in Trench 2 were recovered from the very base of the Trench, all in wet and damp conditions. Preliminary assessment indicates they are more likely to be 'hearth bottoms', or the material collected at the bottom of a fire, and not corroded objects as such, but further analysis will be required to determine this.



Plate 20 Large Fe object SF016.1



Plate 21 Large Fe object SF016.4

6. *Summary and Discussion*

Such small scale test pits as those excavated within, and adjacent to, the City of York Central Library are clearly very limited in what information they can provide regarding the archaeological potential for the site. The manner in which such deep, constrained trenches were excavated was also far from ideal as spoil removed by the mechanical excavator was often scraped up the section of the trench, with the obvious potential to collect later artefacts and deposit them in the bucket with the earlier deposits. However, in spite of the limitations of such test pits, the volume of archaeological material recovered was notable and all investigations indicated the made-ground through which the trench excavated to be one homogeneous deposit.

Both Trench 1 and Trench 2 showed the foundations of the library to exceed 2m in depth, and in both trenches the foundation cut could be discerned around 0.4m from the upstanding library wall. Excavation in such a contained space ensured it was difficult to differentiate between the fill of the construction cut and the surrounding made-ground, but even so it seems clear that the substantial deposit of made-ground contained a wide variety of artefacts from the Roman period through to the early 19th century.

If 2m of made-ground is accepted as one very mixed deposit (it had no discernable internal structure in either trench), it is important to consider when such material could have been deposited in this area and for what purpose. The artefacts retrieved from the made-ground are wide-ranging in date, but none have been recovered which could not be attributed to before the early 19th century. In light of this information, the creation of St. Leonard's Place to the immediate NE in the 1830s and 1840s certainly involved an extensive landscaping, including the removal of much of the historic city wall and rampart beneath. Such an event could easily have led to a large volume of mixed material, rich in archaeological artefacts, spread across the area of what is now York Central Library. In addition the excavation of cellars for St. Leonard's Place would have removed further large volumes of spoil from what is clearly a very rich historical and archaeological setting.

However much depends on the dating of the brick remains seen in Trench 2. This appears to incorporate a wall footing whose alignment does not respect that of the lane, and that of the new stables structure erected on its W following the formation of St Leonard's Place in the 1830s. If the footing relates to an earlier building then the make-up must similarly be an episode pre-dating the formation of St Leonard's place. Judging from the bricks employed in the footing and the later finds recovered from the underlying make-up, it would seem that the make-up itself must have been deposited no earlier than the end of the 18th century – c.1800.

Trenches 3 and 4 within the library were essentially archaeologically sterile and merely confirmed the depth at which the foundations of the library building will have penetrated into the ground.

7. Mitigation and Recommendations

The excavations at York Mint Yard, though small in scale, demonstrated the level of made-ground in this area of the city and the potential for important *ex situ* artefacts to be recovered from these disturbed deposits. The depth of the made-ground also raises the possibility of *in situ* archaeology surviving at significant depth, undisturbed by late 19th and 20th century developments.

In light of the long and convoluted history of this area of York and the clear potential for archaeological material to be recovered from any excavations, it seems essential that archaeological watching briefs are maintained on all ground breaking works associated with this project.

Acknowledgements

Addyman Archaeology were commissioned for this project by City of York Council (contact John Oxley, City of York Council Archaeologist) and the archaeology team were assisted in the excavations by staff from the City of York Council. George and his team showed a high level of knowledge and interest greatly appreciated by the archaeologists on site. The project was managed for Addyman Archaeology by Tom Addyman.

Appendix A:
Context Register; York Mint Yard – Archaeological Watching Brief

Context	Trench	Type	Date	Initial	Description	Comments
101	1	Deposit	02/05/12	RC	Firm black tarmac and hardcore stone make-up. Depth: 0.25m	20 th century road surface and make-up.
102	1	Cut	02/05/12	RC	NNW-SSE aligned foundation cut for upstanding library wall with vertical edges. Depth: Not realised: >2.15m	Cut for 1930s library extension. Same as [204].
103	1	Deposit	02/05/12	RC	Loose to moderately compact mottled and mixed dark black brown and yellow white brown gritty clay. Depth: 0.25m	Possible landscaping spread.
104	1	Deposit	02/05/12	RC	Loose to moderately mixed dark black brown and yellow white brown gritty clay. Depth: >1.65m	Very similar to, but much cleaner than (103). Rich in bones and ceramic. Possible landscaping spread.
105	1	Fill	02/05/12	RC	Loose to moderately compact mottled and mixed black brown and yellow white brown gritty clay. Dimensions: Width: 0.4m. Depth: 2.15m	Fill of [102]. Very similar to (103/104).
106	1	Fill	02/05/12	RC	NNW-SSE aligned electric cable.	Modern.
201	2	Deposit	02/05/12	RC	Firm black tarmac and hardcore stone make-up. Depth: 0.20m	20 th century road surface and make-up.
202	2	Deposit	02/05/12	RC	Soft to moderately compact gritty, mortar rich sand mottled white and light brown. Depth: c.0.25m	Probable demolition and landscaping spread.
203	2	Structure	02/05/12	RC	NE-SW aligned structure of unfrogged red bricks truncated by [204] to the W and with a return to the NW visible at the NE end.	Earlier structure pre-dating the construction of the library.
204	2	Cut	02/05/12	RC	NNW-SSE aligned foundation cut for upstanding library wall with vertical edges. Depth: Not realised: >2.05m	Cut for 1930s library extension. Same as [102].
205	2	Fill	02/05/12	RC	Loose to moderately compact mottled and mixed black brown and yellow white brown gritty clay. Dimensions: Width: 0.4m. Depth: 2.15m	Fill of [204]. Very similar to (206/208).
206	2	Deposit	02/05/12	RC	Moderately compact dark brown silty clay with a silky feel and slightly mottled appearance with mortar inclusions. Depth: c.0.45m	Possible landscaping spread.
207	2	Deposit	02/05/12	RC	Thick band of very clean, crumbling limestone and lime mortar. Depth: 0.2m	Part of possible landscaping spread. Lens?
208	2	Deposit	02/05/12	RC	Moderately compact dark brown silty clay with a silky feel and slightly mottled appearance with mortar inclusions. Depth: c.0.45m	Possible landscaping spread. Very similar to (206). Same as (103/104).
209	2	Structure	02/05/12	RC	NNW-SSE aligned electric cable.	Modern.
301	3	Structure	16/06/12	KM	Floor surface of modern library building.	20 th century. Same as {401}.
302	3	Structure	16/06/12	KM	Load-bearing pillar for roof of modern library. Fe structure encased in concrete.	20 th century. Same as {402}.

303	3	Structure	16/06/12	KM	Possible NNW-SSE aligned wall foundation. Pre-dating extension to library.	20 th century. Same as {403}.
304	3	Deposit	16/06/12	KM	Very mixed and mottled dark black brown gritty silt with areas of lighter hue and crushed lime mortar inclusions.	20 th century. Same as {404}.
401	4	Structure	16/06/12	KM	Floor surface of modern library building.	20 th century. Same as {301}.
402	4	Structure	16/06/12	KM	Load-bearing pillar for roof of modern library. Fe structure encased in concrete.	20 th century. Same as {302}.
403	4	Structure	16/06/12	KM	Possible NNW-SSE aligned wall foundation. Pre-dating extension to library.	20 th century. Same as {303}.
404	4	Deposit	16/06/12	KM	Very mixed and mottled dark black brown gritty silt with areas of lighter hue and crushed lime mortar inclusions.	20 th century. Same as {304}.

Appendix B:
Photographic Register; York Mint Yard – Archaeological Watching Brief

Shot Num.	Direction facing	Trench	Contexts	Description	Date	Initials
001	SSE	1	-	Pre-excavation view of Trench 1	RC	02/05/12
002	WSW	1	-	Pre-excavation view of Trench 1	RC	02/05/12
003	W	1	-	Trench 1 – Location shot	RC	02/05/12
004	NW	-	-	Trench location shots	RC	02/05/12
005	SW	2	-	Pre-excavation view of Trench 2	RC	02/05/12
006	NNE	2	-	Pre-excavation view of Trench 2	RC	02/05/12
007	NW	1	-	Working shot	RC	02/05/12
008	SW	1	-	Working shot	RC	02/05/12
009	NW	2	-	Working shot	RC	02/05/12
010	SW	2	-	Working shot	RC	02/05/12
011	SW	1	-	Working shot	RC	02/05/12
012	WSW	2	{203},{209}	Working shot showing {203} and {209}	RC	02/05/12
013	SSE	2	{203},{209}	{203} and {209} <i>in situ</i>	RC	02/05/12
014	WSW	2	{203},{209}	{203} and {209} <i>in situ</i>	RC	02/05/12
015	ENE	2	{203},{209}	{203} and {209} <i>in situ</i>	RC	02/05/12
016	WSW	2	{203},{209}	{203} and {209} <i>in situ</i>	RC	02/05/12
017	S	1	-	Working shot	RC	02/05/12
018	SW	1	-	Working shot	RC	02/05/12
019	SW	1	-	Working shot	RC	02/05/12
020	SSW	1	-	Working shot	RC	02/05/12
021	WNW	1	-	Working shot	RC	02/05/12
022	SSE	2	{203},{209}	{203} and {209} <i>in situ</i> - detail	RC	02/05/12
023	SE	2	{203},{209}	{203} and {209} <i>in situ</i> - detail	RC	02/05/12
024	-	2	-	Bricks recovered from {203}	RC	02/05/12
025	-	2	-	Bricks recovered from {203}	RC	02/05/12
026	SSE	2	-	Working shot – Trench 2	RC	02/05/12
027	W	2	-	Working shot – Trench 2	RC	02/05/12

028	SSE	-	-	General view of site	RC	02/05/12
029	S	-	-	General view of site	RC	02/05/12
030	SSW	2	-	Working shot	RC	02/05/12
031	WSW	2	(206)	Working shot	RC	02/05/12
032	SSE	2	-	Post-excavation view of Trench 2	RC	02/05/12
033	WSW	2	-	Post-excavation view of Trench 2	RC	02/05/12
034	SSE	2	-	Post-excavation view of Trench 2	RC	02/05/12
035	SSE	2	-	NNW facing section of Trench 2	RC	02/05/12
036	NNW	2	(206),(207), (208)	SSE facing section of Trench 2	RC	02/05/12
037	ENE	2	-	WSW facing section of Trench 2	RC	02/05/12
038	SW	1	-	Working shot	RC	02/05/12
039	WSW	1	-	Post-excavation view of Trench 1	RC	02/05/12
040	NNW	1	-	Post-excavation view of Trench 1	RC	02/05/12
041	NNW	1	[102/105), (103), (104)	SSE facing section of Trench 1	RC	02/05/12
042	SSE	1	[102/105), (103), (104)	NNW facing section of Trench 1	RC	02/05/12
043	ENE	1	(106), (103), (104)	WSW facing section of Trench 1	RC	02/05/12
044	NNW	2	(206), (207), (208)	Post-excavation view of Trench 2	RC	02/05/12
045	WSW	2	-	Post-excavation view of Trench 2	RC	02/05/12
046	NW	1	-	Pre-Excavation view of Trench 1	RC	10/05/12
047	V/NW	1	-	Working shot – RC in Trench 1	-	10/05/12
048	V/NW	1	-	Working shot – RC in Trench 1	-	10/05/12
049	V/W	1	(104), (105)	Post-excavation view of Trench 1	RC	10/05/12
050	V/W	1	(104), (105)	Post-excavation view of Trench 1	RC	10/05/12
051	V/W	1	(104), (105)	Post-excavation view of Trench 1	RC	10/05/12
052	V/NW	1	-	Working shot	RC	10/05/12
053	V/NW	1	-	Working shot	RC	10/05/12
054	V/NNW	1	-	Working shot	RC	10/05/12
055	NW	1	-	Working shot	RC	10/05/12
056	V/SSE	2	-	Working shot	RC	10/05/12
057	V/SSE	2	-	Working shot	RC	10/05/12
058	V/NW	2	-	Working shot	RC	10/05/12
059	NW	2	-	General View of Trench 2	RC	10/05/12
060	V/SSE	2	(205), (208)	Post-excavation view of Trench 2	RC	10/05/12
061	V/SSE	2	(205), (208)	Post-excavation view of Trench 2	RC	10/05/12
062	V/WSW	2	(205), (208)	Post-excavation view of Trench 2 - Detail	RC	10/05/12
063	SE	-	-	St. Leonard's Hospital	RC	10/05/12
064	SE	-	-	St. Leonard's Hospital	RC	10/05/12
065	SE	-	-	St. Leonard's Hospital	RC	10/05/12
066	-	-	-	Multangular Tower	RC	10/05/12
067	-	-	-	Multangular Tower	RC	10/05/12
068	-	-	-	Multangular Tower	RC	10/05/12
069	-	-	-	Multangular Tower	RC	10/05/12
070	-	-	-	Multangular Tower	RC	10/05/12
071	-	-	-	Multangular Tower	RC	10/05/12
072	NW	-	-	Working shot – pre-excavation shot of Trenches 3 and 4	KM	16/06/12
073	E	4	-	Working shot –removing concrete from Trench 4	KM	16/06/12
074	SE	4	-	Working shot –removing concrete from Trench 4	KM	16/06/12

075	NW	3	-	SE facing section of Trench 3	KM	16/06/12
076	NW	3	-	SE facing section of Trench 3	KM	16/06/12
077	NW	3	-	SE facing section of Trench 3	KM	16/06/12
078	NW	3	-	SE facing section of Trench 3 – location shot	KM	16/06/12
079	NW	3	-	SE facing section of Trench 3 – location shot	KM	16/06/12
080	NW	3	-	SE facing section of Trench 3	KM	16/06/12
081	NW	3	-	SE facing section of Trench 3 - detail	KM	16/06/12
082	NW	3	-	SE facing section of Trench 3 - detail	KM	16/06/12
083	NW	3	-	SE facing section of Trench 3	KM	16/06/12
084	NW	3	-	SE facing section of Trench 3	KM	16/06/12
085	NW	3	-	SE facing section of Trench 3	KM	16/06/12
086	NE	3	-	SW facing section of Trench 3	KM	16/06/12
087	NE	3	-	SW facing section of Trench 3	KM	16/06/12
088	NW	3	-	SE facing section of Trench 3	KM	16/06/12
089	NW	3	-	SE facing section of Trench 3	KM	16/06/12
090	V/SW	3	-	Post-excavation view of Trench 3 showing excavation through foundations	KM	16/06/12
091	N	4	-	Working shot – view of Trench 4	KM	16/06/12
092	NW	4	-	Post-excavation view of Trench 4	KM	16/06/12
093	NW	4	-	SE facing section of Trench 4	KM	16/06/12
094	NW	4	-	Working shot - Base of footings in Trench 4	KM	16/06/12
095	NW	4	-	Working shot - Base of footings in Trench 4	KM	16/06/12
096	NW	4	-	Post-excavation view of Trench 4	KM	16/06/12
097	NW	4	-	Post-excavation view of Trench 4	KM	16/06/12
098	NW	4	-	SE facing section of Trench 4	KM	16/06/12
099	NW	4	-	SE facing section of Trench 4	KM	16/06/12
100	NE	4	-	Post-excavation view of Trench 4	KM	16/06/12
101	NE	4	-	Post-excavation view of Trench 4	KM	16/06/12

Appendix C:***Drawings Register; York Mint Yard – Archaeological Watching Brief***

Dwg No.	Type	Scale	Description	Date	Drawn by
001	Plan	1:20	Plan of {203} and {209} within Trench 2	02/05/12	RC

Appendix D:***Finds Register; York Mint Yard – Archaeological Watching Brief***

Number	Context	Quantity	Material	Description	Comments	Date	Initials
001	103	7	Ceramic	Assorted ceramic	Mixed 18 th and 19 th century.	02/05/12	RC
002	103	2	Bone	Bone fragments		02/05/12	RC
003	104	1	Bone	Small carved bone		02/05/12	RC
004	104		Bone	Assorted bones from upper fill	Faunal	02/05/12	RC
005	104	12	Ceramic	Assorted ceramic from upper fill	Mixed date range.	02/05/12	RC
006	104	9	Glass	Assorted glass from upper fill	18 th century?	02/05/12	RC

007	104	1	Fe(?)	Fe object/slag (?) from lower fill		02/05/12	RC
008	104		Bone	Assorted bone from lower fill	Faunal	02/05/12	RC
009	104	10	Ceramic	Assorted ceramic from lower fill	Mixed. Medieval-19 th century.	02/05/12	RC
010	202	3	Ceramic	Assorted green glazed ceramic	Medieval in date	02/05/12	RC
011	202	3	Bone	Bone fragments	Faunal	02/05/12	RC
012	202	2	Glass	Glass fragments	18 th century.	02/05/12	RC
013	206	4	Bone	Assorted bone fragments		02/05/12	RC
014	208	3	Ceramic	Red ceramic tiles	1 with hole	02/05/12	RC
015	208	7	Bone	Assorted bone fragments	Faunal	02/05/12	RC
016	208	4	Fe(?)	Large Fe objects		02/05/12	RC
017	208	1	Glass	Fragment of decorated blue glass	Finely decorated, from a Roman vessel	10/05/12	RC
018	104	c.6	Ceramic	Fragments of pan tile and brick		10/05/12	RC
019	208	1	Stone	Fragment of worked stone	Oolitic limestone retaining apparently cut faces. Possibly from Roman building?	10/05/12	RC
020	208	1	Bone	Bone	Faunal	10/05/12	RC
021	104	1	Flint	Flint sherd		02/05/12	RC
022	104	1	Shell	Shell fragment	Oyster	02/05/12	RC

Appendix E:
Photographic Thumbnails; York Mint Yard – Archaeological Watching Brief



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(002).JPG



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