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Archaeological Investigations at York Station Frontage - Toft's Tower (Tower 13)

By Toby Kendall

YAT Assessment Report 2019/52 April 2019



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Abbreviations

AOD	Above Ordnance Datum
BGL	Below Ground Level
CBM	Ceramic Building Material
WSI	Written Scheme of Investigation
YAT	York Archaeological Trust

NON-TECHNICAL SUMMARY

Between the 8th and the 10th April 2019 York Archaeological Trust conducted a test pit evaluation at York Station Frontage - Toft's Tower (Tower 13) (SE 59647 51549).

The work was undertaken for WYG to help inform a planning application that was under consideration by the City of York Council (18/01511/EIASN). The work was based on a Written Scheme of Investigation produced by YAT. The works involved the excavation and recording of a total of 8 test pits at the base of the tower and adjacent walls.

Test pitting revealed what remained of the original sequence of medieval walls and potentially Toft's Tower. It also gave a better understanding of the rebuilding events in the 17th and 19th centuries.

KEY PROJECT INFORMATION

Project Name	York Station Frontage - Toft's Tower (Tower 13)
YAT Project No.	6132
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1 INTRODUCTION

Between the 8th and the 10th April 2019 YAT conducted a test pit evaluation at York Station Frontage - Toft's Tower (Tower 13) (SE 59647 51549) (Figure 1 Site Location).

The work was undertaken for WYG to help inform a planning application and subsequent Environmental Impact Assessment (18/01511/EIASN).

In 2018 York Station Frontage SI works (YAT 2018) investigated the area using archaeological trenching, archaeological test pits, geotechnical test pit, boreholes, windowless sample boreholes, observation pits, utilities trenches and drilled cores. The additional test pits reported on in this document were to investigate and record the foundations of Tofts Tower and adjacent sections of the City Walls.

A total of 8 test pits were excavated and only one of those failed to reach the base of foundations for the walls.

2 METHODOLOGY

The methodology followed the WSI (Appendix 3) except where test pits were required to be enlarged slightly to excavate around rubble and other obstructions immediately below ground level.

2.1 Test Pits/Trenches

A total of 8 test pits were excavated (Figure 2):

No.	Size (m)	Location (Grid ref.)	Rationale
1	550mm x 500mm x 1300mm deep	459645.6 451554.2	Investigate external face foundations of possibly 19 th century rebuilt section of City Wall northeast of Toft's Tower.
2	c.650mm x c.650mm x 1100mm deep	459644.1 451550.4	Investigate junction of external face foundations of possibly 19 th century rebuilt section of City Wall and Toft's Tower.
3	550mm x 500mm x 700mm deep	459643.3 451546.5	Investigate foundations on external face of Toft's Tower.
4	620mm x 540mm x 630mm deep	459646.9 451544.4	Investigate external face foundations of possible change in build sequence of City Wall southeast of Toft's Tower.
5	580mm x 550mm x 600mm deep	459652.7 451540.0	Investigate external face foundations of change in build sequence of City Wall southeast of Toft's Tower.
6	660mm x 560mm x 600mm deep	459659.3 451534.4	Investigate external face foundations of change in build sequence of City Wall southeast of Toft's Tower (opposite test pit 7).
7	600mm x 560mm x 700mm deep	459661.5 451536.9	Investigate internal face foundations of City Wall southeast of Toft's Tower (opposite test pit 6).
8	600mm x 500mm x 900mm deep	459651.9 451545.0	Investigate east foundations of Toft's Tower on internal side of City Wall circuit. *This was positioned to avoid archaeological excavations in 1985.

The test pits were located at points agreed with the City Archaeologist. These were located by measurements against the standing structures and the digital Ordnance Survey mapping. Additional rectified photography was used to augment the Ordnance Survey mapping for the external face of the walls and tower, this is reflected in the base survey image provided in Figure 2.

All deposits were hand excavated and recorded as per the standard YAT single context recording system.

Finds were collected from undisturbed deposits or where the object warranted cleaning and further investigation. No samples were taken as no appropriate deposits were encountered.

Plans and elevations were drawn using standard conventions. A series of digital photographs of the elevations was also taken to allow rectified images to be created.

The excavated pits were backfilled at the end of each working day. The soil was compacted by foot and then turf replaced.

3 LOCATION, GEOLOGY & TOPOGRAPHY

The location of the works covered in this report sits within the larger development area of the York Station Frontage SI (YAT 2018). The test pits are focussed around Toft's Tower (SE 59647 51549) and sit within an area of c.150m² at the top of the City Wall ramparts. There were 6 test pits on the external side of the walls and a further 2 on the inside.

Bedrock across the site is the Sherwood Sandstone Group. The overlaying superficial deposits are predominantly clays, sands and gravels of the York Moraine Member. (www.bgs.ac.uk - accessed 04/04/19).

The works are bounded by Queen Street to the north, west and south. The eastern boundary is George Stephenson House.

The City Wall rampart projects several metres above the surrounding ground levels which are c.13m to 15m AOD. The top of the rampart is at c.21m AOD.

4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The study area contains a sequence of archaeological remains that have previously been quantified and collated within the 2017 desk based assessment (YAT 2017). Further details were added both before and after the 2018 Station Frontage SI (YAT 2018).

Only the details which are specific to the structures and deposits which may be encountered during the works outlined in this report are summarised below.

4.1 Prehistory

No archaeological features of this date are present in the study area. Residual finds of this date may be present in rampart deposits.

4.2 Roman

No archaeological features of this date are present in the study area. Residual finds of this date may be present in rampart deposits, particularly as it probably incorporated the earlier Roman rampart. Re-used Roman stonework may also be present in the lower parts of the wall and tower (see below).

4.3 Anglo-Scandinavian

No archaeological features of this date are present in the study area. Residual finds of this date may be present in rampart deposits.

4.4 Medieval

A summary of the entry in the York RCHME volume 2, the Defences (1972) for Tofts Tower, or Tower 13 was presented in the Written Scheme of Investigation (Appendix 3).

The wall to the southwest of Toft's Tower (Tower 13) and Tower 12 has been frequently rebuilt, with the part adjoining Tower 13 being rebuilt at the same time as the tower. The name comes from Tower 13 being called Tower of the Tofts in both 1380 and 1403.

Excavation work in 1985 (YAT 1986 - Appendix 4) revealed the earliest phase at the rear of the tower being a limestone face wall with a rubble fill, just beyond the current face. This was lacking dating evidence but was suggested to be anywhere from 13th to 17th century.

4.5 Post-medieval

It is likely that Toft's Tower is the tower 'shot down' by Scots on July 1644 (RCHME 1972). It was rebuilt in 1645 when E. Gyles repaired '*...the walls neere the corner of the Tower at the Toft Greene.*' and the reconstruction probably retained the shape of the original tower (RCHME 1972). The tower has been further altered since c.1682 when Archer shows the front projecting further than at present with angles in each of the flanking stretches of wall and a semi-hexagonal inner side (ibid).

There is now a significant amount of gritstone which is built into the face of the tower. The origin of this material is potentially a Roman structure from the immediately inside the walls in this area.

The 1985 excavations (YAT 1986 - Appendix 4) found that the most of the rear of the tower, bar the northern section, was of potentially of 17th century date. The internal walls contained long narrow bricks which would be of the appropriate date.

The walls were restored in the 1830s (<https://www.british-history.ac.uk/vch/yorks/city-of-york/pp510-520>) with the wall walk to the southeast probably widened and/or rebuilt during this work.

Up to c.100m of the wall to the northeast of the tower was rebuilt during the creation of the second railway station inside the medieval walls. The northern arch was created in 1840 and the southern in 1845. At the same time the ramparts on the external face of the wall and tower were significantly truncated and a retaining wall put in place to retain what was left.

Excavation in 1985 (YAT 1986 - Appendix 4) indicated the northern extent of the tower had been completely rebuilt, with foundations extending for more than 2m BGL. This would clearly link with the creation of the arches in the 1840s.

4.6 Modern

Since the mid 19th century changes have been limited with the most significant impact being further truncation of the ramparts during the construction of Queen Street Bridge in 1878.

Smaller repairs and re-pointing of the stonework will have continued through this period, with a major consolidation operation at the rear of Toft's Tower undertaken in 1985.

5 RESULTS

The following results are presented sequentially, test pit by test pit. The deposit and structure sequence is described chronologically from earliest to latest. All depths relate to ground level immediately adjacent to the face of the main wall they were dug against.

Individual test pit log sheets for each pit can be found in Appendix 5.

Limestone described in the text below refers to magnesian limestone unless otherwise indicated.

5.1 Test Pits

5.1.1 *Test Pit 1 550mm x 500mm, 1300mm deep. Investigating external foundations of City Wall northeast of Toft's Tower (Figure 3)*

The earliest deposit encountered was the 19th century wall foundation (1003) which extended beyond the limit of excavation. The lowest section was made up of rounded limestone blocks bonded with light grey mortar. Higher up the blocks were more regular and 'faced'. On top of this was the wall itself (1004) with smooth-faced limestone blocks that had been formally 'pointed up' as they were to be above ground and visible.

Up against the lower part of the foundation, up to 600mm BGL, there was a deposit interpreted as rebuilt rampart (1002). This was orangey brown clay/silt sand with mortar and clay lumps. This appeared to be disturbed when compared with the medieval rampart elements observed in other test pits and was assumed to have been disturbed during the 19th century wall rebuild. This was sealed by 500mm of soft, dark grey silt sand which contained several fragments of post-medieval brick (1001). Again this deposit was linked with the 19th century wall alterations.

The uppermost 100mm in the sequence was topsoil and turf (1000).

5.1.2 *Test Pit 2 c.650mm x c.650mm, 1100mm deep. Investigating external foundations of City Wall junction with northwest face of Toft's Tower (Figure 4).*

What was interpreted as in-situ medieval rampart was present at 1000mm BGL. This was soft, brownish orange silty sand (2003). This deposit also contained several fragments of Roman pottery, tile and two tesserae. This material suggested the source material of the rampart was from earlier Roman deposits and structures, most probably within the *colonia* immediately to the east of Toft's Tower.

The first structure was footings to the tower and wall which were made up of rough limestone blocks and occasional cobbles (2004). This appeared to be a continuous footing for both the wall and tower and was interpreted as medieval in date. On top of this footing was a section of surviving original wall (2005), which was constructed from smooth-faced limestone blocks with a light yellow mortar. Against the footing and wall, up to 400mm BGL, was disturbed rampart deposits (2002). This material was almost identical to the in-situ rampart material (2003) but had clearly been disturbed. The date for this disturbance was medieval or possibly later.

On top of the disturbed rampart was a 260mm thick further disturbed rampart reconstruction layer (2001). This deposit contained large magnesian limestone and oolitic limestone

fragments as well as a sherd of post-medieval pottery. This was potentially disturbed during the reconstruction of Tofts tower in the 17th century. The tower reconstruction (2006) sat immediately on top of the earlier structure and was built using a mixture of gritstone, limestone and oolitic limestone blocks. The scale of the gritstone blocks suggested they were re-used from another structure.

The top 140mm in the sequence was topsoil and turf (2000) which contained modern debris.

5.1.3 Test Pit 3 550mm x 500mm, 700mm deep. Investigating external foundations of southwest face of Toft's Tower (Figure 5).

At the base of Test Pit 3 was original rampart material (3002). This was the soft, brownish orange sand seen in other pits.

On top of the early rampart was the footing for the early tower or possibly the rebuild (3003). This was smooth-faced limestone blocks with little mortar surviving. The purely limestone basis for the structure would suggest it was original, but as there was no direct link to other original structures it was not possible to confirm.

On top of the foundation was the 17th century tower rebuild (3004). It was constructed in the same manner as seen in Test Pit 2, with gritstone, limestone and oolitic limestone. Later repairs were clearly visible in the structure. Against the tower rebuild and probably earlier footings was 500mm of disturbance and rampart rebuilding deposits (3001). This was again similar to the post medieval disturbance in Test Pit 2: loose, orange brown, gritty sand with large limestone and oolitic limestone fragments.

The top 100mm in the deposit sequence was turf and topsoil (3000).

5.1.4 Test Pit 4 620mm x 540mm, 630mm deep. Investigating possible change in external foundations of City Wall southeast of Toft's Tower (Figure 6).

At the base of the excavation was rampart material (4004) as seen in other Test Pits. This contained medieval tile, bone and oyster shell. However, there was also significant disturbance from burrowing rodents, probably rats, as seen in Plate 1. This disturbance was present through most of the test pit deposits.

From 500mm BGL over 300mm of original wall footing survived (4005). This was a base layer of large cobbles (possibly including a re-used onager stone or stone cannonball), on top of which survived a single course of rough limestone blocks. Against the earlier footing was 100mm of light brown sand and mortar construction spread (4003) which contained limestone fragments, probably from the original wall construction. On top of the construction spread was a further 80mm of light grey silt and ash (4002) that was interpreted as a buried earlier surface to the rampart.

Cutting into the earlier foundations and deposits was the post medieval rebuild of the wall. The footing (4006) was smaller cobbles and a rectangular limestone block bonded with a hard mortar. The wall on top (4007) was rectangular limestone blocks, some rougher than others, as well as occasional re-used medieval tile and post-medieval brick. Against the rebuild was a 100mm thick layer of sand and mortar with limestone fragments (4001). This was interpreted as disturbance and/or rebuilding of the rampart linked with the building works.

There was 100mm of turf and topsoil at the top of the pit (4000).

5.1.5 Test Pit 5 580mm x 550mm, 600mm deep. Investigating possible change in external foundations of City Wall southeast of Toft's Tower (Figure 7).

From 600mm BGL the original rampart was present (5004). This deposit was as seen in other pits, silt sand with medieval tile, animal bone and oyster shell.

On top of the rampart was the footing for what has been interpreted as the original wall (5005), rough-hewn limestone blocks with pale yellowy mortar. On top of this was the smooth-faced limestone block wall (5006). At the southeast there appeared to be a construction for the projection, or widening, of the wall in this section (cut 5007 Plate 2). The base of the foundation for the projection (5008) was not seen, but what was visible was smooth-faced limestone blocks. The wall on top of the foundation (5009) was of the same build.

The relationship between what has been interpreted as the original wall (5005) and the projection/widening may be different to what has been described, both walls were apparently 'keyed' into on another. However, the assumption is that an original wall with a shallow footing would be reinforced by a widened section with a more substantial foundation.

Within the angle of the two walls, at 500mm BGL was a firm mortar construction spread (5003) up to 100mm deep (Plate 3). This was sealed by 200mm of light grey ashy silt buried surface/rampart material (5002). The grey colour may have come from degraded buried organic material. It was interpreted that these were linked with the construction of the later projection and replacement/rebuilding of the rampart up against it.

Between 100mm and 300mm BGL was loose, light brown, sand and mortar with larger limestone fragments (5001). This disturbed rampart material was probably linked with more recent renovation and repair of the walls.

The top 100mm in the deposit sequence was turf and topsoil (5000).

5.1.6 Test Pit 6 660mm x 600mm, 600mm deep. Investigating possible change in external foundations of City Wall southeast of Toft's Tower (Figure 8). Opposite Test Pit 6

Original rampart deposits (6002) were seen from c.350mm BGL, where they appeared to be built up against the section of original wall. The rampart was the same as seen in other pits.

The wall footing (6005) was visible from ground level and was again rough-hewn limestone blocks with a light brownish yellow mortar. This footing was different in form from the footings seen in pits to the northwest as it stepped out on three levels, possibly indicating the wall being built in different stages or to difference specifications along its length. The wall (6006) was the same smooth-faced limestone blocks as seen elsewhere.

Cut into the wall and wall footing at the northwestern side of the pit was a buttress (Plate 4). The footing for the buttress (6003) was re-used smooth-faced limestone blocks with occasional cobbles. If mortar had been used it did not survive. The buttress (6004) was smooth-faced limestone blocks with various mortars. Linked with the construction of the buttress was a 250mm thick disturbance deposit (6001), soft dark grey sand silt with limestone and mortar flecks. This material was identical to the post-medieval disturbances seen in other pits.

The uppermost 100mm in the sequence was topsoil and turf (1000).

5.1.7 Test Pit 7 600mm x 560mm, 700mm deep. Investigating internal foundations of City Wall southeast of Toft's Tower (Figure 9). Opposite Test Pit 6.

From 420mm BGL to beyond the base of the test pit was a friable, brownish orange, sandy grit with pebbles and CBM flecks (7002). This was interpreted as a deliberate foundation for the wall walk footings. The footing itself (7003) was two courses of rough-hewn limestone blocks that went from 260mm to 520mm BGL. The wall itself was slightly rounded smooth-faced limestone blocks (7004). Up against the structure of the wall was 320mm of friable, dark grey, sandy silt with frequent limestone fragments (7001). This was interpreted as the reconstruction of the rampart following the 1830s repairs and widening of the wall walk.

The top 100mm in the sequence was topsoil and turf (7000).

5.1.8 Test Pit 8 600mm x 500mm, 900mm deep. Investigating foundations on internal side of Toft's Tower (Figure 10)

What appeared to be original rampart (8003) was present from 820mm BGL. This was different to what was seen in the pits on the outer face of the wall, being soft, light brown, clay silt. The difference may be explained by variations in the rampart structure and/or physical distance from the other pits.

On top of the rampart was the footing for the rebuild of the tower. This was rough-hewn limestone blocks with a light grey mortar (8004). The wall of the tower (8005) was rectangular limestone blocks. Up against the wall and foundation was a construction spread/rebuild of the rampart (8002). This material was a mixture of mortar spreads and orangey brown silt between 500mm and 820mm BGL. It contained several post-medieval brick fragments, 52mm-56mm thick, which would correlate with the 17th century rebuilding of the tower.

From 100mm to 400mm BGL was loose, brownish dark grey, sandy silt with limestone and mortar fragments (8001). This may have been further disturbance from the 17th century, disturbance during the 1830's repair and renovation works, or even disturbance from the 1985 excavations during reinforcement of the tower.

The top 100mm was turf and topsoil (8000).

6 DISCUSSION

The archaeological test pits have proven to be an invaluable window into both the archaeological and engineering makeup of Toft's Tower and the walls adjacent. It is now possible to put forward the following narrative about the remains.

Roman

There are Roman finds through the rampart and disturbance deposits, as well as potentially re-used Roman stone in the rebuilding of Toft's Tower. However, nothing appears to be in-situ and is thus residual or re-used.

The finds (tile, pottery and tesserae) indicate that both structural and waste materials have been incorporated into the medieval and later rampart structure. The obvious source for this would be the Roman buildings inside the *colonia*, assumed to be immediately inside the standing walls.

Medieval

The investigations largely confirmed what was previously thought to be medieval in date. The original rampart deposits contain medieval roof tile, along with animal bone and oyster shell, so more precise dating could be attempted. However, the residual nature of the finds would make this more speculative than definitive.

Test Pits 2 and 3 suggests that there are probably surviving medieval elements of both the wall adjacent and the footings under Tofts tower. Test Pit 4 shows significant post-medieval reconstruction all the way to foundations level. Test Pit 5 was inconclusive about the date of the wall projection to the southeast. Test pit 8 indicated the medieval wall section observed in 1985 does not extend as far south as the pit.

17th century

These investigations have produced no data to contradict the previously suggested 17th century date for the reconstruction of Toft's Tower. In fact the fabric exposed and pottery from related disturbance deposits further confirms this theory.

19th century

There has clearly been 'work' undertaken on the walls and tower which are 19th century or later. This was seen in all of the test pits.

The internal wall walk which may be 1830s in date is clearly a different construction and may have its own foundation deposit as well as stone footing.

Disturbance of the northeast section of wall for the railway arches was clearly significant and the depth of the foundation was beyond the limit of excavation in Test Pit 1. Interestingly this disturbance may not have carried on all the way to the tower externally as seen in Test Pit 2. This is different from the picture presented internally during the excavations in 1985.

The buttress observed in Test Pit 6 was not possible to date, but the disturbance associated with it matched the 19th century or later disturbance seen in other pits.

LIST OF SOURCES

'City walls, bars, posterns and bridges', in *A History of the County of York: the City of York*, ed. P M Tillott (London, 1961), pp. 510-520. *British History Online* <http://www.british-history.ac.uk/vch/yorks/city-of-york/pp510-520> [accessed 5 April 2019].

REFERENCES

RCHME, 1972. *An Inventory of the Historical Monuments in York, Volume 2, the Defences*. London pp 90-107

YAT 1986. *Back(s) to the wall*. Archaeology In York - Interim Volume 11 No 1 pp 16-21

YAT 2017. *York Station and Queens Street Bridge*. YAT Desk-Based Assessment 2017/105

YAT 2018. *York Station Frontage SI*. YAT Assessment Report 2018/118

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WYG the teams both on and off site

APPENDIX 1 - INDEX TO ARCHIVE

Item	Number of items
Context register	1
Test Pit record sheets	8
Drawing sheets	1
Digital photographs	461
Written Scheme of Investigation/RAMS	1
Report	1

Table 1 Index to archive

APPENDIX 2 - CONTEXT LIST

Context	Intervention	BGL mm	Depth mm	Description
1000	Test Pit 1	0	100	Topsoil - Turf and topsoil, friable/loose, brownish dark grey, sandy silt with modern debris.
1001	" "	100	500	Disturbance/Rebuilt rampart - Soft, dark grey, silt sand with post-medieval brick.
1002	" "	600	700+	Rebuilt rampart - Orangey brown, clayey silt sand with mortar and clay lumps.
1003	" "	100	1200+	Wall foundation - Smooth-faced rectangular limestone blocks bonded with light grey mortar. Lower course more rounded.
1004	" "	na	na	Wall - Smooth-faced rectangular limestone blocks with various mortars used for pointing.
2000	Test Pit 2	0	140	Topsoil - Turf and topsoil, friable/loose, brownish dark grey, sandy silt with modern debris.
2001	" "	140	260	Disturbance/Rebuilt rampart - Loose, orangey brown, gritty sand with frequent large limestone and oolitic limestone fragments. Post-medieval pottery.
2002	" "	400	600	Rebuilt rampart - Soft, brownish orange, silty sand with limestone and mortar fragments. Roman finds.
2003	" "	1000	100+	Rampart - Soft, brownish orange, silty sand with limestone and mortar fragments. Roman finds.
2004	" "	640	400	Earlier wall/tower footing - Rough-hewn limestone blocks and occasional cobbles with light grey mortar.
2005	" "	na	na	Earlier wall/tower - Smooth-faced rectangular limestone blocks with light yellow mortar.
2006	" "	na	na	Tower rebuild - Mixed gritstone, limestone and oolitic limestone blocks with various mortars. Clearly re-used stone in this structure.
3000	Test Pit 3	0	100	Topsoil - Turf and topsoil, friable/loose, brownish dark grey, sandy silt with modern debris.
3001	" "	100	500	Disturbance/Rebuilt rampart - Loose, orangey brown, gritty sand with frequent large limestone and oolitic limestone fragments. Post-medieval pottery.
3002	" "	600	50+	Rampart - Soft, brownish orange sand with small limestone and mortar fragments.
3003	" "	400	360	Earlier tower or tower rebuild footing - Smooth-faced rectangular limestone blocks with little mortar surviving.
3004	" "	na	na	Tower rebuild - Mixed gritstone, limestone and oolitic limestone blocks with various

Context	Intervention	BGL mm	Depth mm	Description
				mortars. Clearly re-used stone in this structure.
4000	Test Pit 4	0	100	Topsoil - Turf and topsoil, friable/loose, brownish dark grey, sandy silt with modern debris.
4001	" "	100	200	Disturbance/Rebuilt rampart - Loose, light brown, sand and mortar with limestone fragments.
4002	" "	200	80	Buried surface/Rampart - Soft, dark to light grey silt and ash.
4003	" "	280	100	Construction Spread - Friable, light brown, sand and mortar with limestone fragments.
4004	" "	380	250+	Rampart - Soft, orangey brown, silt sand with medieval tile, oyster shell and animal bone. *Rodent disturbance through whole profile.
4005	" "	200	400+	Earlier wall footing - Large cobbles at base and then a course of rough-hewn limestone blocks with light brownish yellow mortar. One cobble may be re-used onager stone/cannonball.
4006	" "	500	100	Wall rebuild footing - Smaller cobbles and rectangular limestone blocks at base with larger block above, This was bonded with a hard yellowy grey mortar.
4007	" "	na	na	Wall rebuild - Rectangular limestone blocks with occasional rough-hewn blocks. Re-used medieval tile and post-medieval brick. All bonded with various mortars.
5000	Test Pit 5	0	100	Topsoil - Turf and topsoil, friable/loose, brownish dark grey, sandy silt with modern debris.
5001	" "	100	200	Disturbance/Rebuilt rampart - Loose, light brown, sand and mortar with limestone fragments up to 200mm.
5002	" "	300	200	Buried surface/Rampart - Soft, dark to light grey silt and ash.
5003	" "	500	100	Construction Spread - Firm, light brownish yellow, mortar.
5004	" "	600	50+	Rampart - Soft, orangey brown, silt sand with medieval tile, oyster shell and animal bone.
5005	" "	400	240	Wall footing - Rough-hewn limestone blocks with light brownish yellow mortar.
5006	" "	na	na	Wall - Smooth-faced rectangular limestone blocks with various mortars.
5007	" "	600	50+	Wall projection cut - Possible construction cut for wall projection. Not fully excavated.
5008	" "	350	200+	Wall projection foundation - Smooth-faced rectangular limestone blocks with various mortars.
5009	" "	na	na	Wall projection - Smooth-faced rectangular limestone blocks with various mortars.

Context	Intervention	BGL mm	Depth mm	Description
6000	Test pit 6	0	100	Topsoil - Turf and topsoil, friable/loose, brownish dark grey, sandy silt with modern debris.
6001	" "	100	250	Disturbance/Rebuilt rampart - Soft, dark grey, sand silt with limestone and mortar flecks. Some possible ashy material from disturbed earlier rampart soils.
6002	" "	350	250+	Rampart - Soft, orangey brown, silt sand with medieval tile, oyster shell and animal bone.
6003	" "	200	400+	Buttress footing - Rectangular limestone blocks and occasional cobbles. No remaining mortar if originally used.
6004	" "	na	na	Buttress - Smooth-faced rectangular limestone blocks with various mortars. Cut and keyed into wall.
6005	" "	0	530	Wall footing - Rough-hewn limestone blocks with light brownish yellow mortar.
6006	" "	na	na	Wall - Smooth-faced rectangular limestone blocks with various mortars.
7000	Test Pit 7	0	100	Topsoil - Turf and topsoil, friable/loose, brownish dark grey, sandy silt with modern debris.
7001	" "	100	320	Disturbance/Rebuilt rampart - Friable, dark grey, sandy silt with frequent limestone fragments.
7002	" "	420	280+	Rebuilt rampart/gravel footing - Friable, brownish orange, sandy grit with pebbles and CBM flecks.
7003	" "	260	260	Wall walk footing - Rough-hewn limestone blocks with various mortars.
7004	" "	na	na	Wall walk wall - Smooth-faced rectangular limestone blocks with various mortars.
8000	Test Pit 8	0	100	Topsoil - Turf and topsoil, friable/loose, brownish dark grey, sandy silt with modern debris.
8001	" "	100	400	Disturbance/Rebuilt rampart - Loose, dark greyish brown, sand silt with limestone and mortar fragments.
8002	" "	500	320	Construction Spread/Rebuilt rampart - Mortar spreads and light orangey brown silt. Frequent post-medieval brick.
8003	" "	820	80+	Rampart - Soft, light brown, clay silt.
8004	" "	680	120	Tower rebuild footing - Rough-hewn limestone blocks with light grey mortar.
8005	" "	na	na	Tower rebuild - Rectangular limestone blocks with various mortars.

Table 2 Context list



YORK ARCHAEOLOGICAL TRUST

WRITTEN SCHEME OF INVESTIGATION FOR ARCHAEOLOGICAL INVESTGATIONS, YORK STATION FRONTAGE – TOFTS TOWER (TOWER 13)

Site Location: Tofts Tower, York City Walls
NGR: SE 59647 51549
Proposal: Archaeological investigations relating to the works at York Station Frontage
Planning ref: 18/01511/EIASN
Prepared for: WYG
Document Number: 2019/44

Version	Produced by		Edited by		Approved by	
	Initials	Date	Initials	Date	Initials	Date
1	CJ/TK	28/03/19	IDM	29/03/19	IDM	01/04/19

1 SUMMARY

- 1.1 York Archaeological Trust, as part of the SI works at York Station frontage, were commissioned in 2018 by WYG to undertake a programme of archaeological evaluation and watching brief. Following discussions with the then City of York Archaeologist, John Oxley it was decided that a further series of test pits may be required internally and externally around Toft Tower.
- 1.2 The test pits are to be located at key points where changes were visible in relation to the constructions/repairs sequence of the walls and tower. The pits are to investigate and record the below ground elements of the structures, and ideally expose and record the foundations present.
- 1.3 The work will be carried out in accordance with the Brief and this WSI, and according to the principles of the Institute for Archaeology (ClfA) Code of Conduct and all relevant standards and guidance.

2 SITE LOCATION & DESCRIPTION

- 2.1 The proposal site is located at Tofts Tower, York City Walls, located on the east side of Queen Street, south of York Railway Station (Figure 1). The test pits locations are on top of the city wall ramparts; two within the city walls and six along the exterior.

3 DESIGNATIONS & CONSTRAINTS

- 3.1 The city walls and their gates are part of a single scheduled monument (National Monument No. 13280).
- 3.2 The site lies within the Railway Character Area, area 22 of the York Central Historic Core Conservation Area and within York's Area of Archaeological Importance (AAI).
- 3.3 The site is located on a very steep rampart and health and safety considerations need to be made concerning the general public and site staff.

4 ARCHAEOLOGICAL INTEREST

- 4.1 The area of York enclosed by medieval defences on the west bank of the River Ouse has its origins in the Roman period. From the 2nd century onwards the area became the centre of the civilian city of *Eboracum*. By the early 3rd century, York was officially granted the status of *colonia*, the most prestigious level of the Roman urban hierarchy and it has been suggested that much of the present circuit of walls directly overlay their Roman predecessor (Palliser 2014, 12-15).
- 4.2 A summary of the entry in the York RCHME volume 2, the Defences (1972) for Tofts Tower, or Tower 13 is as follows;

The wall between Tofts Tower (Tower 13) and Tower 12 has been frequently rebuilt, with the part adjoining Tower 13 being rebuilt at the same time as that tower. Tower 13 was called Tower of the Tofts in 1380 and 1403 and was probably the tower 'shot down' by Scots on July 1644. It was rebuilt in 1645 when E. Gyles repaired '*...the walls neere the corner of the Tower at the Toft Greene.*' The reconstruction probably retained the shape of the original tower. The tower has been further altered since c.1682 when Archer shows the front projecting further than at present with angles in each of the flanking stretches of wall and a semi-hexagonal inner side. It is now rectangular with the west face almost entirely built of large gritstone blocks, which do not occur in the adjacent walls and are probably reused from a Roman building.

Over 300ft of the wall north-east of the west angle have been rebuilt, to adapt to the railway line which passed through to the Station in Toft Green. The first station, opened on 29 May 1839, was outside the walls, but in 1839-40 the northern of the two arches was cut, and in 1841 the new station and offices of the York and North Midland and Great North of England Railway Company were opened. The southern arch was made in 1845 to bridge additional lines. There are five buttresses supporting the wall.

From the west angle the ground level originally rose to a hill by Tower 16, opposite the Royal Station Hotel and then dropped down to the Ouse. The ramparts followed this rise and fall but the railway cuttings, the building of Queen Street and bridge, and the formation of Station Road have obscured the original profile. Discoveries made in cutting through the rampart for access to the Old Station are poorly recorded; the rampart covered undisturbed

burials in a Roman cemetery and contained disturbed burials from the same. An earlier wall was found at three places within the rampart and was thought to be Roman, however one of the walls found under the southern foot-way arch of Station Road was constructed of stone and clay, 16ft above the Roman level; stones recovered from it have now been identified as 8th and 11th century. It is possible that this wall was in fact the footings of the medieval wall buried in a rising of the rampart, which was then surmounted by a new wall.

- 4.3 Work undertaken during the SI investigations (YAT 2018) looked at the bottom and the lower slopes of the external rampart along Queen Street. It indicated that the bottom of the rampart had significant depths of landscaping over 19th century demolition and the lower slopes had at least 650mm of 19th century infill and disturbance topped by 350mm of turf and topsoil.

5 AIMS

- 5.1 The aims of the evaluation are:

- to determine the extent, condition, character, importance and date of any archaeological remains present. More specifically to investigate any visible phasing within the walls and presence/form of their foundations
- to provide information that will enable the remains to be placed within their local, regional, and national context and for an assessment of the significance of the archaeology of the proposal area to be made
- to provide information to enable the local authority to decide any requirements for further archaeological mitigation for the site

6 EXCAVATION METHODOLOGY

- 6.1 The evaluation will comprise the following elements:

- Test pitting
- Reporting

Please note that further stages of work or other mitigation measures could be required by the local authority, depending upon the results of the evaluation.

- 6.2 Test pits will be excavated in the approximate locations shown on Figure 2. Exact locations will be determined precisely on site in relation visible features and variations in the walls and tower. The pits will each measure 0.5m x0.5m and up to 1.2m deep.
- 6.3 Turfs will be stored separately from excavated soil, to facilitate the reinstatement of the pits.
- 6.4 All test pits will be sufficiently cleaned by hand to enable the built structures and any other potential archaeological features to be identified and recorded.
- 6.5 Once excavation is complete each pit will be photographed to enable an SfM/rectified image of the built structures to be created.
- 6.6 If a pit is otherwise archaeological sterile, the relative depths below ground level of each soil layer will be recorded. Any other archaeological features will be drawn; following standard conventions (see section 7). Context numbers will be assigned to each identifiable

soil layer as appropriate. Artefacts retrieved will be bagged by context.

- 6.7 The trench locations will be accurately plotted by measurement to local permanent features shown on published Ordnance Survey maps. All measurements will be accurate to +/-10cm, and the trenches locatable on a 1:2500 Ordnance Survey map. This is to ensure that the trenches can be independently relocated in the event of future work.

7 RECORDING METHODOLOGY FOR EXCAVATION

- 7.1 All archaeological features will be recorded using standardised pro forma record sheets. Plans, sections and elevations will be drawn or photographed as appropriate.
- 7.2 Each context will be described in full on a pro forma context record sheet in accordance with the accepted context record conventions. Each context will be given a unique number. These field records will be checked and indexes compiled.
- 7.3 Photographs of work in progress and post-excavation of individual and groups of features will be taken. This will include general views of entire features and of details such as sections as considered necessary. The photographic record will comprise of digital photography. All site photography will adhere to accepted photographic record guidelines.
- 7.4 Areas which do not contain any archaeological deposits will be photographed and recorded as being archaeologically sterile. The natural stratigraphic sequence within these areas will be recorded.
- 7.5 All finds will be collected and handled following the guidance set out in the ClfA guidance for archaeological materials. Unstratified material will not be kept unless it is of exceptional intrinsic interest. Material discarded as a consequence of this policy will be described and quantified in the field. Finds of particular interest or fragility will be retrieved as Small Finds, and located on plans. Other finds, finds within the topsoil, and dense/discrete deposits of finds will be collected as Bulk Finds, from discrete contexts, bagged by material type. Any dense/discrete deposits will have their limits defined on the appropriate plan.
- 7.6 All artefacts and ecofacts will be appropriately packaged and stored under optimum conditions, as detailed in the RESCUE/UKIC publication *First Aid for Finds*, and recording systems must be compatible with the recipient museum. All finds that fall within the purview of the Treasure Act (1996) will be reported to HM Coroner according to the procedures outlined in the Act, after discussion with the client and the local authority.
- 7.7 Other samples will be taken, as appropriate, in consultation with York Archaeological Trust specialists and the Heritage England Regional Science Advisor, as appropriate (e.g. dendrochronology, soil micromorphology, monolith samples, C14, etc.). Samples will be taken for scientific dating where necessary for the development of subsequent mitigation strategies. Material removed from site will be stored in appropriate controlled environments.
- 7.8 In the event of human remains being discovered during the evaluation these will be left *in-situ*, covered and protected, in the first instance. The removal of human remains will only take place in compliance with environmental health regulations and following discussions with, and with the approval of, the Ministry of Justice. If human remains are identified, the Ministry of Justice and City of York Archaeologist, Claire MacRae will be informed

immediately. An osteoarchaeologist will be available to give advice on site.

- If **disarticulated** remains are encountered, these will be identified and quantified on site. If trenches are being immediately backfilled, the remains will be left in the ground. If the excavations will remain open for any length of time, disarticulated remains will be removed and boxed, for immediate reburial by the Church.
- If **articulated** remains are encountered, these will be excavated in accordance with recognised guidelines (see 7.10) and retained for assessment.
- Any grave goods or coffin furniture will be retained for further assessment.

7.9 Where a licence is issued, all human skeletal remains must be properly removed in accordance with the terms of that licence. Where a licence is not issued, the treatment of human remains will be in accordance with the requirements of Civil Law, ClfA Technical Paper 13 (1993) and Historic England guidance (2005).

8 SPECIALIST ASSESSMENT

8.1 The stratigraphic information, artefacts, soil samples, and residues will be assessed as to their potential and significance for further analysis and study. The material will be quantified (counted and weighted). Specialists will undertake a rapid scan of all excavated material. Ceramic spot dates will be given. Appropriately detailed specialist reports will be included in the report.

8.2 Materials considered vulnerable should be selected for stabilisation after specialist recording. Where intervention is necessary, consideration must be given to possible investigative procedures (e.g. glass composition studies, residues on or in pottery, and mineral-preserved organic material). Allowance will be made for preliminary conservation and stabilization of all objects and a written assessment of long-term conservation and storage needs will be produced. Once assessed, all material will be packed and stored in optimum conditions, in accordance with Watkinson and Neal (1998), ClfA (2014) and Museums and Galleries (1992).

8.3 All finds will be cleaned, marked and labelled as appropriate, prior to assessment. For ceramic assemblages, any recognised local pottery reference collections and relevant fabric Codes will be used.

8.4 Allowance will be made for the recovery of material suitable for scientific dating and contingency sums will be made available to undertake such dating, if necessary. This will be decided in consultation with City of York Archaeologist, Claire MacRae.

9 REPORT & ARCHIVE PREPARATION

9.1 Upon completion of the site work, a report will be prepared to include the following:

- a) A non-technical summary of the results of the work.
- b) An introduction which will include the planning reference number, grid reference and dates when the fieldwork took place.
- c) An account of the methodology and detailed results of the operation, describing structural data, archaeological features, associated finds and environmental data, and a conclusion and discussion.

- d) A selection of photographs and drawings, including a detailed plan of the site accurately identifying the areas monitored, trench locations, selected feature drawings, and selected artefacts, and phased feature plans where appropriate.
 - e) Specialist artefact and environmental reports where undertaken, and a context list/index.
 - f) Details of archive location and destination (with accession number, where known), together with a context list and catalogue of what is contained in that archive.
 - g) A copy of the key OASIS form details
 - h) Copies of the Brief and WSI
 - i) Additional photographic images may be supplied on a CDROM appended to the report
- 9.2 Copies of the report will be submitted to the commissioning body. A bound and digital copy of the report will be submitted for inclusion into the HER.
- 9.3 A field archive will be compiled consisting of all primary written documents, plans, sections and photographs. Catalogues of contexts, finds, soil samples, plans, sections and photographs will be produced. York Archaeological Trust will liaise with the Yorkshire Museum prior to the commencement of fieldwork to establish the detailed curatorial requirements of the museum and discuss archive transfer and to complete the relevant museum forms. The relevant museum curator would be afforded access to visit the site and discuss the project results.
- 9.4 The owner of the Intellectual Property Rights (IPR) in the information and documentation arising from the work, would grant a licence to the Local Authority and the museum accepting the archive to use such documentation for their statutory functions and provide copies to third parties as an incidental to such functions. Under the Environmental Information Regulations (EIR), such documentation is required to be made available to enquirers if it meets the test of public interest. Any information disclosure issues would be resolved between the client and the archaeological contractor before completion of the work. EIR requirements do not affect IPR.
- 9.5 Upon completion of the project an OASIS form will be completed at <http://ads.ahds.ac.uk/project/oasis/>.

10 POST EXCAVATION ANALYSIS & PUBLICATION

- 10.1 The information contained in the evaluation report will enable decisions to be taken regarding the future treatment of the archaeology of the development site and any material recovered during the evaluation.
- 10.2 If further archaeological investigations (mitigation) take place, any further analyses (as recommended by the specialists, and following agreement with City of York Archaeologist, Claire MacRae) may be incorporated into the post-excavation stage of the mitigation programme unless such analysis are required to provide information to enable a suitable mitigation strategy to be devised. Such analysis will form a new piece of work to be commissioned.
- 10.3 In the event that no further fieldwork takes place on the site, a full programme of post

excavation analysis and publication of artefactual and scientific material from the evaluation may be required by City of York Archaeologist, Claire MacRae. Where this is required, this work will be a new piece of work to be commissioned.

- 10.4 If further site works do not take place, allowance will be made for the preparation and publication in a local and/or national journal of a short summary on the results of the evaluation and of the location and material held within the site archive.

11 HEALTH AND SAFETY

- 11.1 Health and safety issues will take priority over archaeological matters and all archaeologists will comply with relevant Health and Safety Legislation.
- 11.2 A Risk Assessment will be prepared prior to the start of site works.
- 11.3 The specific hazards of the steep slope about a live carriageway will be managed by using harnesses with ground anchors, and appropriate fencing. A full RAMS will be prepared for the site.

12 PRE-START REQUIREMENTS

- 12.1 The client will be responsible for ensuring site access has been secured prior to the commencement of site works, and that the perimeter of the site is secure.
- 12.2 The client will provide York Archaeological Trust with up to date service plans and will be responsible for ensuring services have been disconnected, where appropriate.
- 12.3 The client will be responsible for ensuring that any existing reports (e.g. ground investigation, borehole logs, contamination reports) are made available to York Archaeological Trust prior to the commencement of work on site.

13 REINSTATEMENT

- 13.1 Following excavation and recording the spoil from the test pits will be backfilled unless requested otherwise. The backfill material will be levelled and compressed as far as possible but will not be compressed to a specification. York Archaeological Trust are not responsible for reinstating any surfaces, including reseeding, unless specifically commissioned by the client who will provide a suitable specification for the work.

14 TIMETABLE & STAFFING

- 14.1 The timetable will be as agreed with the client
- 14.2 Specialist staff available for this work are as follows:
- Human Remains – Malin Holst, York Osteology Ltd
 - Palaeoenvironmental remains – John Carrott, Palaeoecology Research Services Ltd
 - Head of Curatorial Services - Christine McDonnell
 - Finds Researcher - Nicky Rogers

- Pottery Researcher - Anne Jenner
- Finds Officers – Nienke Van Doorn
- Archaeometallurgy & Industrial Residues – Rachel Cubitt and Dr Rod Mackenzie
- Conservation - Ian Panter

15 MONITORING OF ARCHAEOLOGICAL FIELDWORK

- 15.1 As a minimum requirement, City of York Archaeologist, Claire MacRae will be given a minimum of one week's notice of work commencing on site, and will be afforded the opportunity to visit the site during and prior to completion of the on-site works so that the general stratigraphy of the site can be assessed and to discuss the requirement any further phases of archaeological work. York Archaeological Trust will notify City of York Archaeologist, Claire MacRae of any discoveries of archaeological significance so that site visits can be made, as necessary. Any changes to this agreed WSI will only be made in consultation with City of York Archaeologist, Claire MacRae.
- 15.2 With the client's agreement illustrated notices will be displayed on site to explain the nature of the works.

16 COPYRIGHT

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17 KEY REFERENCES

Brown, D. H., 2007. *Archaeological Archives: A Guide to Best Practice in Creation, Compilation, Transfer and Curation*. ClfA/AAA

Campbell, G., Moffett, L., and Straker, V. (eds.), 2011. *Environmental Archaeology. A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-Excavation (second edition)*. English Heritage (Portsmouth)

ClfA. Chartered Institute for Archaeologists, 1993. McKinley, J. I., and Roberts, C. (eds.). *Excavation and Post-Excavation Treatment of Cremated and Inhumed Human Remains*. Technical Paper No. 13

ClfA. Chartered Institute for Archaeologists, 2011. Brown, D.H. *Archaeological Archives: A Guide to Best Practice in Creation, Compilation, Transfer and Curation (second edition)*.

ClfA. Chartered Institute for Archaeologists, 2014. *Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials*.

ClfA. Chartered Institute for Archaeologists, 2014. *Standard and Guidance for Archaeological Field Evaluation*

Department for Communities and Local Government, 2012. National Planning Policy Framework.

Historic England, 2002. *With Alidade and Tape – Graphical and Plane Table Survey or Archaeological Earthworks*.

Historic England, 2005. *Guidance for Best Practice for Treatment of Human Remains*

Excavated from Christian Burial Grounds in England.

Historic England, 2006. *Guidelines on the X-Radiography of Archaeological Metalwork.*

Historic England, 2007. *Understanding the Archaeology of Landscape – a Guide to Good Recording Practice.*

Historic England, 2015. *Archaeometallurgy. Guidelines for Best Practice.*

Historic England, 2015. *Geoarchaeology: Using Earth Sciences to Understand the Archaeological Record.*

Historic England, 2015. *Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide.*

Historic England, 2015. *Piling and Archaeology. Guidelines and Best Practice.*

Historic England, 2015. *Where on Earth are We? The Role of Global Navigation Satellite Systems (GNSS) in Archaeological Field Survey.*

Historic England, 2016. *Preserving Archaeological Remains. Decision-taking for Sites under Development.*

Historic England, 2008. *Investigative Conservation. Guidelines on How the Detailed Examination of Artefacts from Archaeological Sites can Shed Light on their Manufacture and Use.*

Leigh, D., Neal, V., and Watkinson, D. (eds.), 1998. *First Aid for Finds: Practical Guide for Archaeologists.* United Kingdom Institute for Conservation of Historic & Artistic Works, Archaeology Section; 3rd Revised Edition.

Museum and Galleries Commission, 1992. *Standards in the Museum Care of Archaeological Collections.*

Palliser, D. M., 2014. *Medieval York.* Oxford University Press

RCHME, 1972. *An Inventory of the Historical Monuments in York, Volume 2, the Defences.* London pp 90-107

RCHME, 1999. *Recording Archaeological Field Monuments – a Descriptive Specification.*

Standing Conference of Archaeological Unit Managers (SCAUM), 2007. *Health and Safety in Field Archaeology*

YAT, 2018. *Archaeological Investigations at York Station Frontage.* YAT Assessment Report 2018/116

For the latest Historic England guidance documents see:

<https://historicengland.org.uk/advice/latest-guidance/>

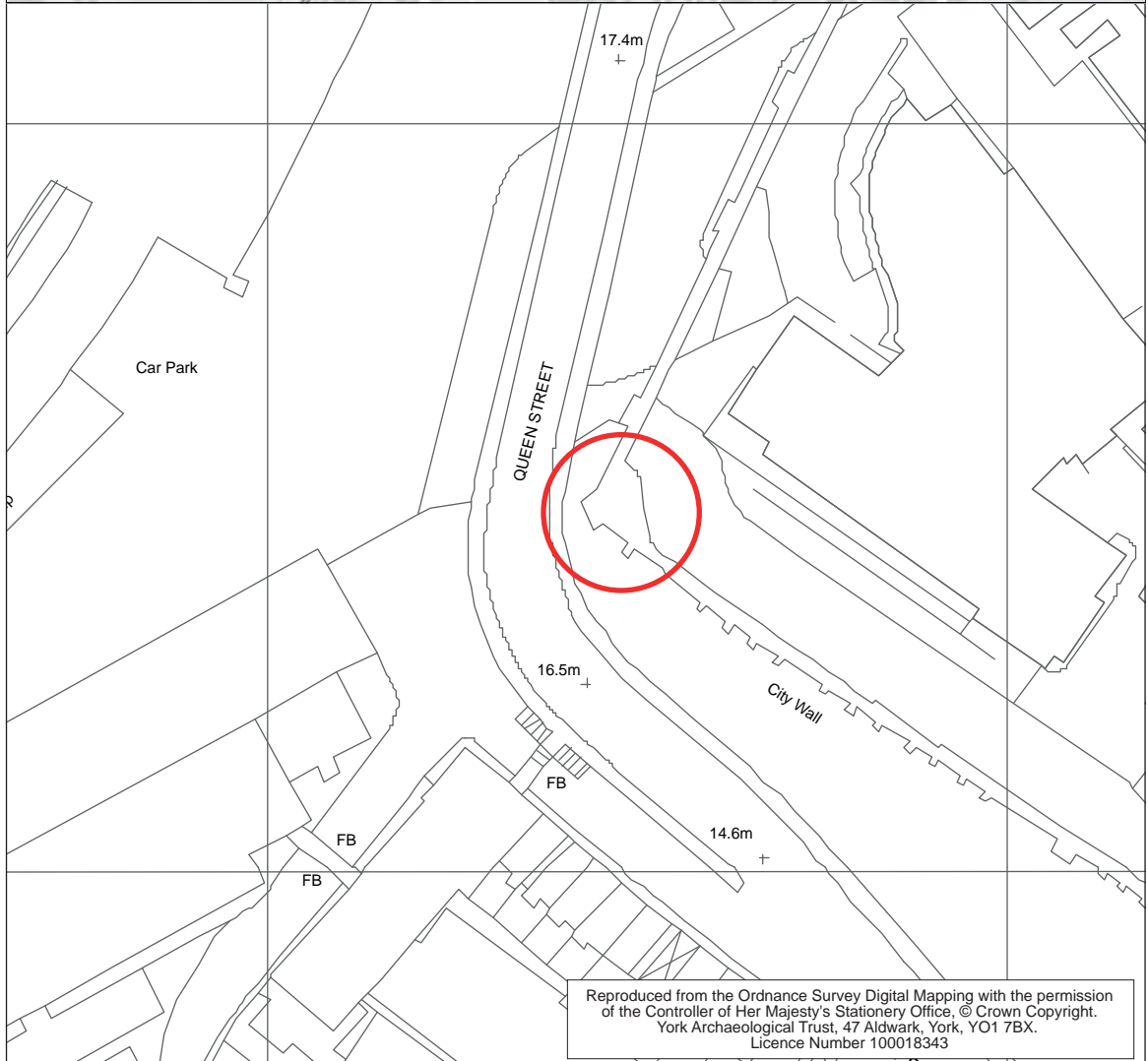
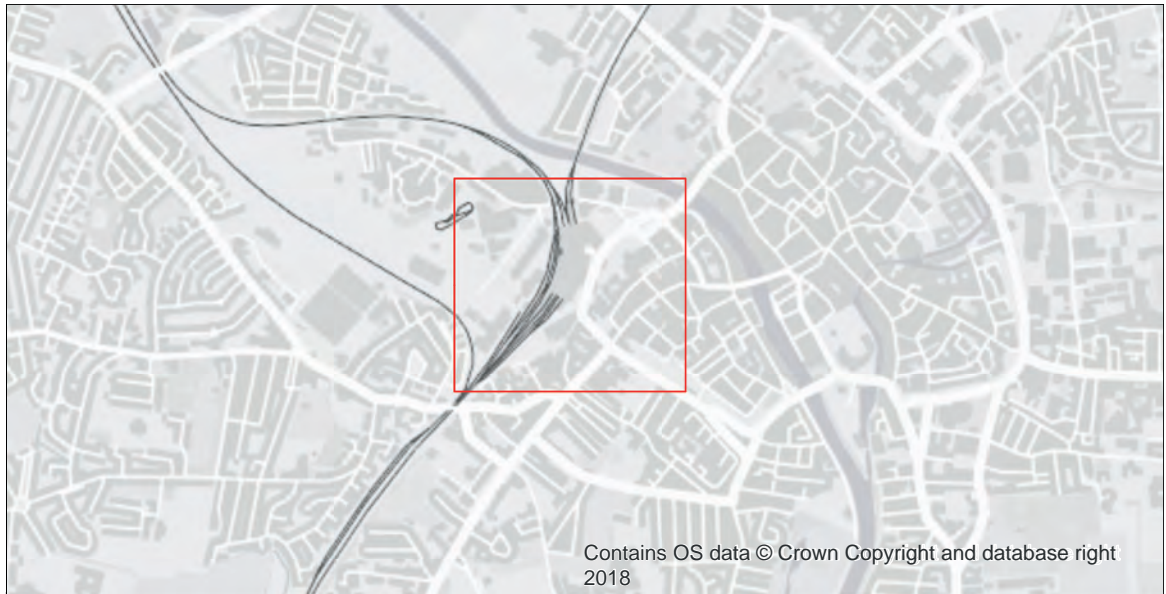


Figure 1 Site Location 1:25000 and 1:1000

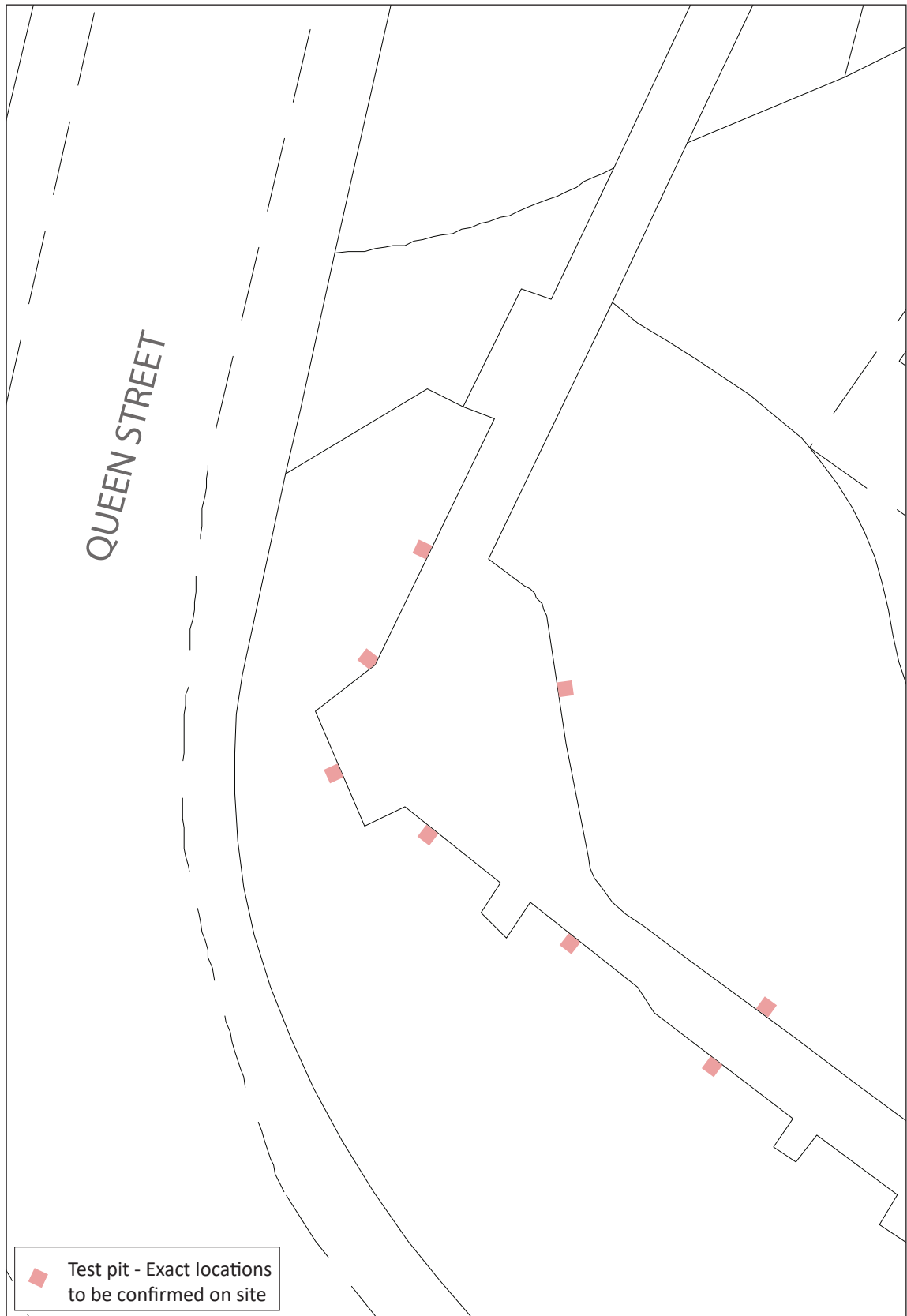
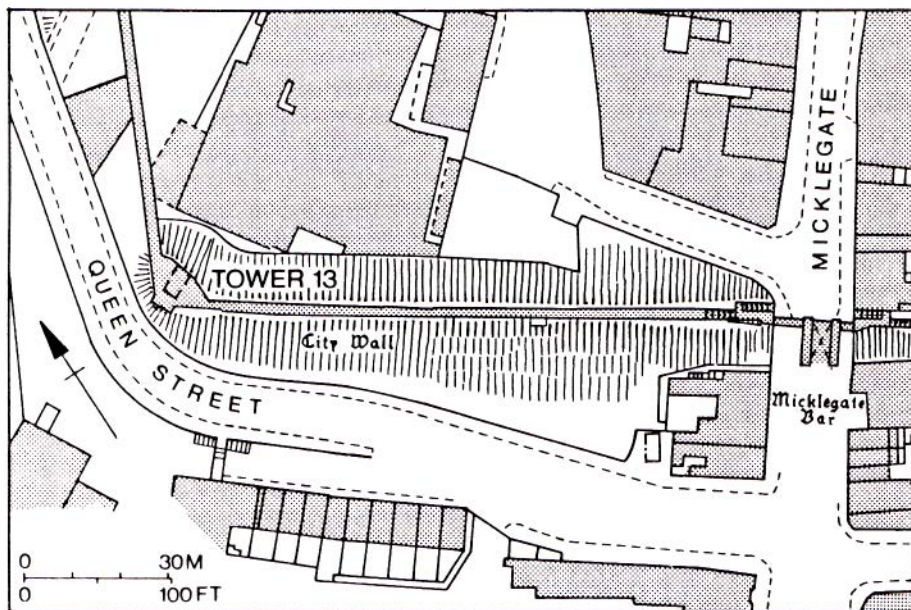


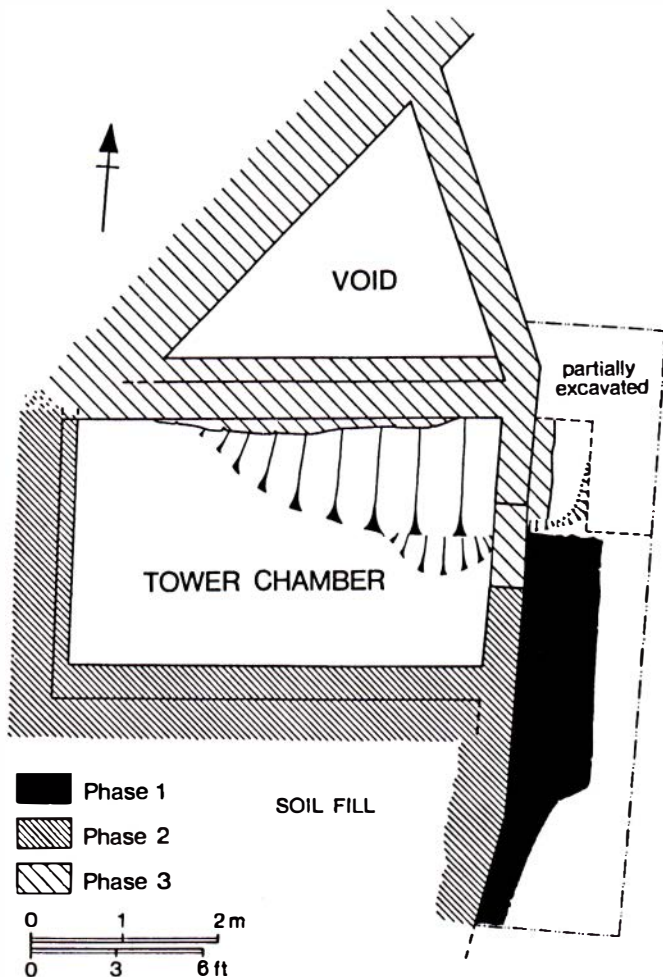
Figure 2 Works Location 1:200

Back(s) to the wall



The City Council's programme of consolidation on the City Walls has already led to excavations at Towers 11, 8 and Foss Islands Road, all reported in previous editions of INTERIM. Recently attention turned to Tower 13, also known as Tofts Tower, which lies at the south west corner of the medieval defences. Signs of structural failure in the foundations were evident from a number of large cracks in the rear wall and brick vaulted roof; to allow the City Engineer to gauge the scale of the problem, and us to record the archaeology, the Trust carried out an excavation on the site from October to early November 1985, funded by the City Council and the Department of the Environment in the 1:3 ratio which is standard for archaeological and consolidation work on the Walls.

Tower 13 is irregular in plan, containing a rectangular chamber walled and vaulted in post-medieval brick. The fill between the chamber walls and the outer walls' limestone skin varies between earth and rubble. Although not the most inspiring site(!) - a tower in this position is believed to have been demolished after taking a direct hit during the Civil War siege of York - it was hoped that the plan and floor levels of the present, post-medieval tower's medieval predecessor(s) might be recovered.



Plan of Tower 13 and the adjacent brick-vaulted void (see p.21)

The earliest structure recovered (Phase 1) survived as a 3.4m length of wall with a rubble and mortar core, faced with Magnesian Limestone. Its position shows that the present rear wall of Tower 13 does not follow the original line, but too little survived to give a clear indication of the plan of the structure it belonged to. No associated dating evidence was found, and it may belong anywhere from the 13th century to perhaps the 17th century.

Of the Phase 2 tower, the west, south and part of the east walls still stand. The internal walls are brick, the rear wall of brick faced with ashlar. No evidence survived to indicate the form of the roof. The long, narrow bricks used may indicate an 17th/18th century date for the construction, but no other dateable material was recovered.

The tower reached its present form in the next phase of building. The roof, north wall and part of the east wall of the earlier tower were demolished, and a massive cut made to insert new wall footings. This cut was excavated to a depth of some 2m before safety considerations forced us to call a halt. The roof of the standing structure was added, a tunnel vault in brick with an earth fill over it. Brick of a different type and bond to that of Phase 2 was used for the walls and again, the rear wall of the tower was faced with limestone ashlar to blend in with the City wall on either side. All earlier floor levels seem to have been removed in the clearance for this phase of building.

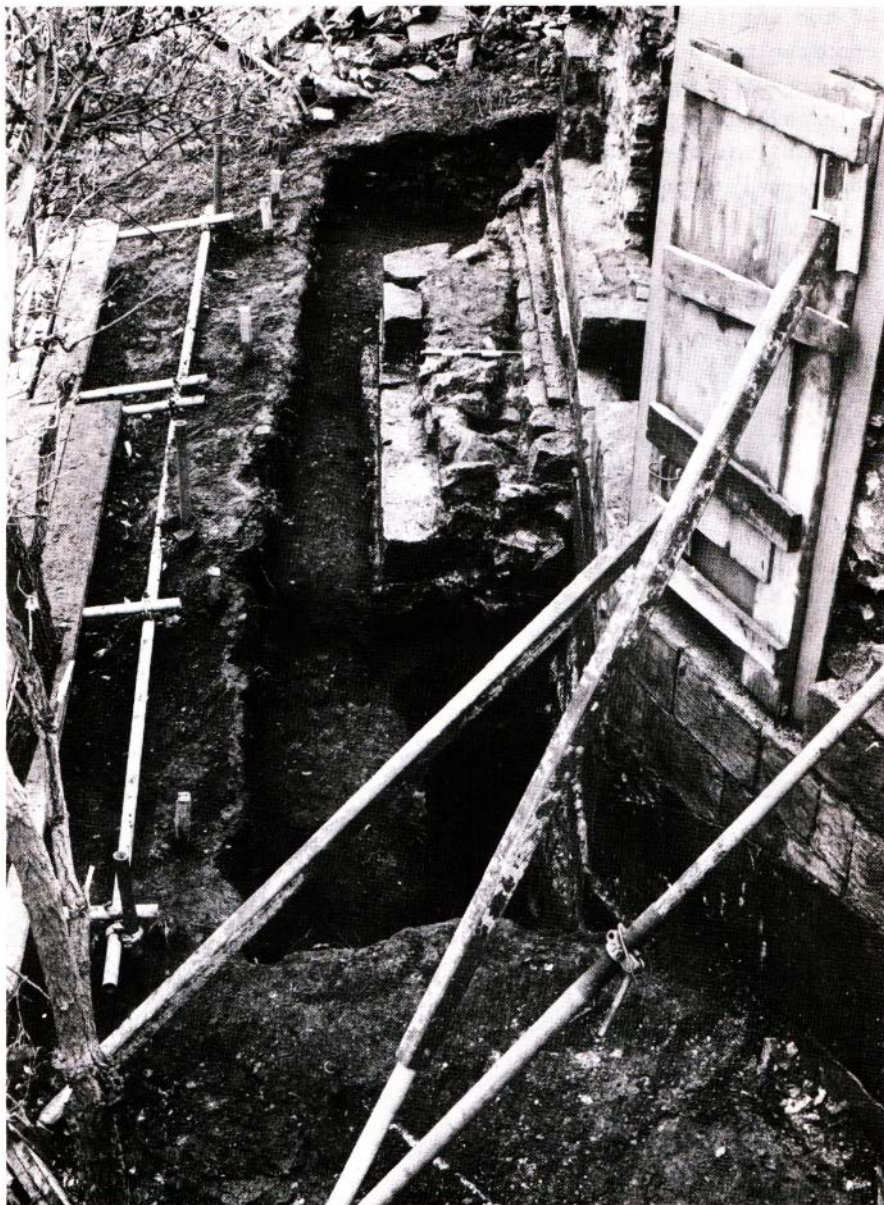
Pottery from the foundation trenches indicates a Victorian date for Phase 3 and there is every reason to believe that this cut and rebuilding is integral with the demolition and rebuilding of the main curtain wall and rampart north of the tower when the first railway station was constructed within the walls, c 1840, INTERIM 5/3, pp 5-19.

The earliest feature on the site was a rampart of clay loam and sandy clay loam, into which the Phase 1 wall was cut; a 1.60m high section of this material was recorded in the side of the deep Victorian construction trench. As we know next to nothing

of the sequence of defences on this side of the city, an opportunity to investigate the rampart would have been welcome, but consultation with the Engineer decided that the insertion of a shallow concrete foundation would be all that was required to stabilise the tower. As this involved almost no damage to the rampart deposits, archaeological work came to an end.



Tower 13: tower structure - limestone facing, brick vault, earth fill.



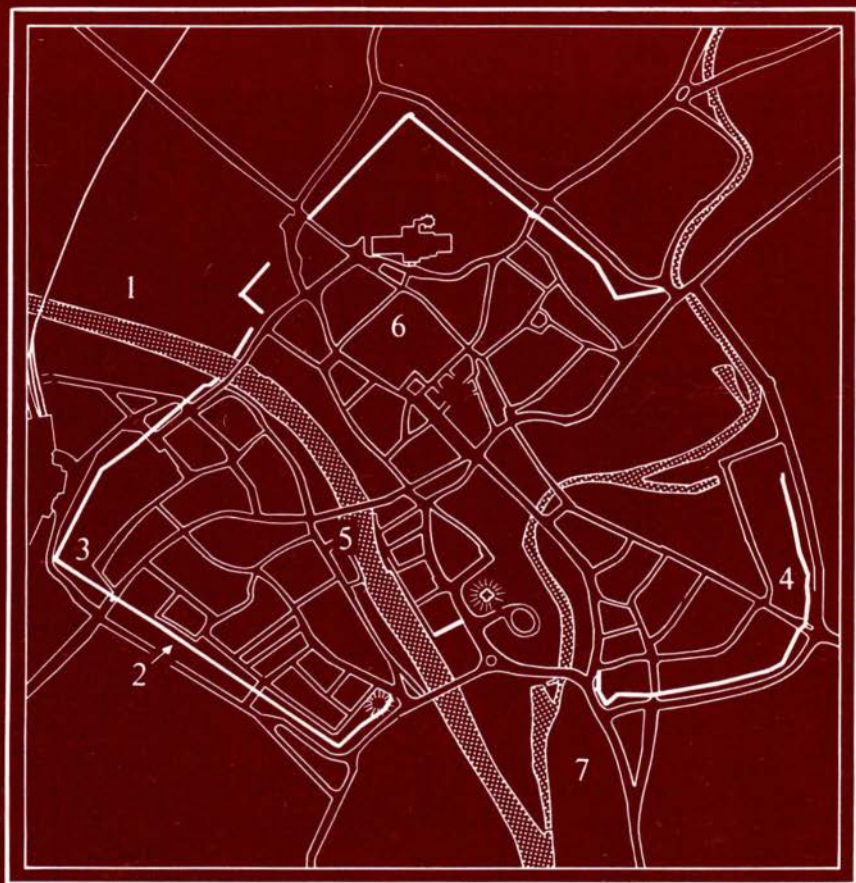
Tower 13: site fully excavated from the north - phase 1 wall, phase 3 cut.



Tower 13: inside view of Victorian reconstruction of the angle in the defences immediately adjacent to Tofts Tower:- the brick vault and it's supports.

In the course of the consolidation work, a feature was revealed which gives an interesting insight into 'corner cutting' by Victorian engineers. North of the tower, a short length of Phase 3 wall runs into and is bonded with the main curtain wall. A poorly-built relieving arch resting on a rotten wooden tie beam carries the wall over the fill of the foundation cut, which has settled, producing a c30cm gap between the base of the wall and the fill. Even more disconcerting is that the space between facing stones and the main curtain is not infilled with rubble or earth so that it is possible to crawl into the hollow in the wall.


This space was never meant to be seen. Access would have been impossible and the stonework inside is unfinished. Is this a case of Victorian 'jerry building' or can INTERIM readers think of a sound engineering reason behind the feature?



SITES REVIEW

1 MUSEUM GARDENS
2 TOWER 8
3 TOWER 13
4 FOSS ISLANDS ROAD

5 BRIDGE STREET
6 COFFEE YARD
7 REDFEARNS


 YORK ARCHAEOLOGICAL TRUST	Site Code -	
TEST PIT/BOREHOLE/WINDOW SAMPLE LOG	Project Number- 6132	
Site Name - York Station Frontage - Toft's Tower	Trench/Area TP1	Sheet - 1 of 1

Intervention No. TP1	
Time/Date pm 08/04/19	
Contexts / Numbers Assigned	
1000	Topsoil - Turf and topsoil, friable/loose, brownish dark grey, sandy silt with modern debris.
1001	Disturbance/Rebuilt rampart - Soft, dark grey, silt sand with post-medieval brick.
1002	Rebuilt rampart - Orangey brown, clayey silt sand with mortar and clay lumps.
1003	Wall foundation - Smooth-faced rectangular limestone blocks bonded with light grey mortar. Lower course more rounded.
1004	Wall - Smooth-faced rectangular limestone blocks with various mortars used for pointing.
Notes	
550mm x 500mm x 1300mm deep. Grid ref. 459645.6 451554.2	

Sketch Section / Photo


Facing southeast

Facing southeast

 YORK ARCHAEOLOGICAL TRUST	Site Code -	
TEST PIT/BOREHOLE/WINDOW SAMPLE LOG	Project Number- 6132	
Site Name - York Station Frontage - Toft's Tower	Trench/Area TP2	Sheet - 1 of 1

Intervention No. TP2	
Time/Date am 10/04/19	
Contexts / Numbers Assigned	
2000	Topsoil - Turf and topsoil, friable/loose, brownish dark grey, sandy silt with modern debris.
2001	Disturbance/Rebuilt rampart - Loose, orangey brown, gritty sand with frequent large limestone and oolitic limestone fragments.
2002	Rebuilt rampart - Soft, brownish orange, silty sand with limestone and mortar fragments. Roman finds.
2003	Rampart - Soft, brownish orange, silty sand with limestone and mortar fragments. Roman finds.
2004	Earlier wall/tower footing - Rough-hewn limestone blocks and occasional cobbles with light grey mortar.
2005	Earlier wall/tower - Smooth-faced rectangular limestone blocks with light yellow mortar.
2006	Tower rebuild - Mixed gritstone, limestone and oolitic limestone blocks with various mortars. Clearly re-used stone in this structure.
Notes	
c.650mm x c.650mm x 1100mm deep. Grid ref. 459644.1 451550.4	
Oolitic, rather than more common magnesian, limestone was linked with the post-medieval disturbance of the tower rebuild.	
Original wall to northeast has a slight kink before joining what appears to be 19 th century rebuild.	

Sketch Section / Photo	
	
Facing east-southeast	
	
Facing south	


 YORK ARCHAEOLOGICAL TRUST	Site Code -	
TEST PIT/BOREHOLE/WINDOW SAMPLE LOG	Project Number- 6132	
Site Name - York Station Frontage - Toft's Tower	Trench/Area TP3	Sheet - 1 of 1

Intervention No. TP3	
Time/Date am 10/04/19	
Contexts / Numbers Assigned	
3000	Topsoil - Turf and topsoil, friable/loose, brownish dark grey, sandy silt with modern debris.
3001	Disturbance/Rebuilt rampart - Loose, orangey brown, gritty sand with frequent large limestone and oolitic limestone fragments. Post-medieval pottery.
3002	Rampart - Soft, brownish orange sand with small limestone and mortar fragments.
3003	Earlier tower or tower rebuild footing - Smooth-faced rectangular limestone blocks with little mortar surviving.
3004	Tower rebuild - Mixed gritstone, limestone and oolitic limestone blocks with various mortars. Clearly re-used stone in this structure.
Notes	
550mm x 500mm x 700mm deep. Grid ref. 459643.3 451546.5	
Footings may relate to earlier structure or rebuild. The investigations completed within this test pit cannot determine with any more certainty.	

Sketch Section / Photo

Facing east-northeast

Facing east-northeast


 YORK ARCHAEOLOGICAL TRUST	Site Code -	
TEST PIT/BOREHOLE/WINDOW SAMPLE LOG	Project Number- 6132	
Site Name - York Station Frontage - Toft's Tower	Trench/Area TP4	Sheet - 1 of 1

Intervention No. TP4	
Time/Date pm 08/04/19	
Contexts / Numbers Assigned	
4000	Topsoil - Turf and topsoil, friable/loose, brownish dark grey, sandy silt *disturbed
4001	Disturbance/Rebuilt rampart - Loose, light brown, sand and mortar/limestone fragments.
4002	Buried surface/Rampart - Soft, dark to light grey silt and ash.
4003	Construction Spread - Friable, light brown, sand, mortar/limestone fragments.
4004	Rampart - Soft, orangey brown, silt sand with bone medieval tile and oyster shell
4005	Earlier wall footing - Large cobbles at base and then a course of rough-hewn limestone blocks with light brownish yellow mortar.
4006	Wall rebuild footing - Smaller cobbles and rectangular limestone blocks at base with larger block above, *Hard mortar.
4007	Wall rebuild - Rectangular limestone blocks with occasional rough-hewn blocks. Re-used medieval tile and post-medieval brick. All bonded with various mortars.
Notes	
620mm x 540mm x 630mm deep. Grid ref. 459646.9 451544.4	
This pit had been significantly disturbed by burrowing animals. This is pictured in the second image where an old burrow can be seen towards the base of the test pit.	
In 4005 one cobble may be re-used onager stone/cannonball.	



Sketch Section / Photo


Facing norrtheast

Facing northeast

 YORK ARCHAEOLOGICAL TRUST	Site Code -	
TEST PIT/BOREHOLE/WINDOW SAMPLE LOG	Project Number- 6132	
Site Name - York Station Frontage - Toft's Tower	Trench/Area TP5	Sheet - 1 of 1

Intervention No. TP5	
Time/Date am 08/04/19	
Contexts / Numbers Assigned	
5000	Topsoil - Turf and topsoil, friable/loose, brownish dark grey, sandy silt with modern debris.
5001	Disturbance/Rebuilt rampart - Loose, light brown, sand and mortar with limestone fragments up to 200mm.
5002	Buried surface/Rampart - Soft, dark to light grey silt and ash.
5003	Construction Spread - Firm, light brownish yellow, mortar.
5004	Rampart - Soft, orangey brown, silt sand with medieval tile
5005	Wall footing - Rough-hewn limestone blocks with light brownish yellow mortar.
5006	Wall - Smooth-faced rectangular limestone blocks with various mortars.
5007	Wall projection cut - Possible construction cut for wall projection. Not excavated.
5008	Wall projection foundation 5006
5009	Wall projection - see 5006
Notes	
580mm x 550mm x 600mm deep. Grid ref. 459652.7 451540.0	
<p>The projection where the wall becomes wider was assumed to be later. This conclusion was made because the foundations are deeper and thus 'reinforce' the wall. This addition has been keyed into the main wall from the base.</p> <p>A construction spread sealed the projection construction so it may be a single continuous build.</p>	

Sketch Section / Photo

Facing northeast

Facing northeast


 YORK ARCHAEOLOGICAL TRUST	Site Code -	
TEST PIT/BOREHOLE/WINDOW SAMPLE LOG	Project Number- 6132	
Site Name - York Station Frontage - Toft's Tower	Trench/Area TP6	Sheet - 1 of 1

Intervention No. TP6	
Time/Date am 08/04/19	
Contexts / Numbers Assigned	
6000	Topsoil - Turf and topsoil, friable/loose, brownish dark grey, sandy silt with modern debris.
6001	Disturbance/Rebuilt rampart - Soft, dark grey, sand silt with limestone and mortar flecks. Some possible ashy material from disturbed earlier rampart soils.
6002	Rampart - Soft, orangey brown, silt sand with medieval tile, oyster shell and animal bone.
6003	Buttress footing - Rectangular limestone blocks and occasional cobbles. No remaining mortar if originally used.
6004	Buttress - Smooth faced rectangular limestone blocks with various mortars. Cut and keyed into wall.
6005	Wall footing - Rough-hewn limestone blocks with light brownish yellow mortar.
6006	Wall - Smooth-faced rectangular limestone blocks with various mortars.
Notes	
660mm x 560mm x 600mm deep. Grid ref. 459659.3 451534.4	
Disturbance linked with the construction and insertion of the buttress was across the whole pit.	

Sketch Section / Photo

Facing northeast

Facing northwest


 YORK ARCHAEOLOGICAL TRUST	Site Code -	
TEST PIT/BOREHOLE/WINDOW SAMPLE LOG	Project Number- 6132	
Site Name - York Station Frontage - Toft's Tower	Trench/Area TP7	Sheet - 1 of 1

Intervention No. TP7	
Time/Date pm 09/04/19	
Contexts / Numbers Assigned	
7000	Topsoil - Turf and topsoil, friable/loose, brownish dark grey, sandy silt with modern debris.
7001	Disturbance/Rebuilt rampart - Friable, dark grey, sandy silt with frequent limestone fragments.
7002	Rebuilt rampart/gravel footing - Friable, brownish orange, sandy grit with pebbles and CBM flecks.
7003	Wall walk footing - Rough-hewn limestone blocks with various mortars.
7004	Wall walk wall - Smooth-faced rectangular limestone blocks with various mortars.
Notes	
600mm x 560mm x 700mm deep. Grid ref. 459661.5 451536.9	
The lower deposit, 7002, may be a footing for the wall walk which was probably expanded in the 19 th century.	
What appears to be a backfilled test pit was present to the southeast of this test pit. This must have been excavated in the last decade.	

Sketch Section / Photo

Facing southwest

Facing southwest

 YORK ARCHAEOLOGICAL TRUST	Site Code -	
TEST PIT/BOREHOLE/WINDOW SAMPLE LOG	Project Number- 6132	
Site Name - York Station Frontage - Toft's Tower	Trench/Area TP8	Sheet - 1 of 1

Intervention No. TP8	
Time/Date pm 09/04/19	
Contexts / Numbers Assigned	
8000	Topsoil - Turf and topsoil, friable/loose, brownish dark grey, sandy silt with modern debris.
8001	Disturbance/Rebuilt rampart - Loose, dark greyish brown, sand silt with limestone and mortar fragments.
8002	Construction Spread/Rebuilt rampart - Mortar spreads and light orangey brown silt. Frequent post-medieval brick.
8003	Rampart - Soft, light brown, clay silt
8004	Tower rebuild footing - Rough-hewn limestone blocks with light grey mortar.
8005	Tower rebuild - Rectangular limestone blocks with various mortars.
Notes	
600mm x 500mm x 900mm deep. Grid ref. 459651.9 451545.0	
There was a lot of post-medieval brick in the deposits above the rampart material (8003). These were not retained but were all c.52-56mm thick.	
A large limestone block projected into the pit (top picture, bottom right). This was in the disturbance material 8001.	

Sketch Section / Photo

Facing west-southwest

Facing west-southwest

PLATES



Plate 1 Disturbance from animal burrows in Test Pit 5, facing northeast, scale unit 100mm



Plate 2 Test Pit 5 projection construction cut, facing northeast, scale unit 100mm



Plate 3 Test Pit 5 construction spread, facing east, scale unit 100mm



Plate 4 Test Pit 6 Buttress left of the scale, facing northeast, scale unit 100mm

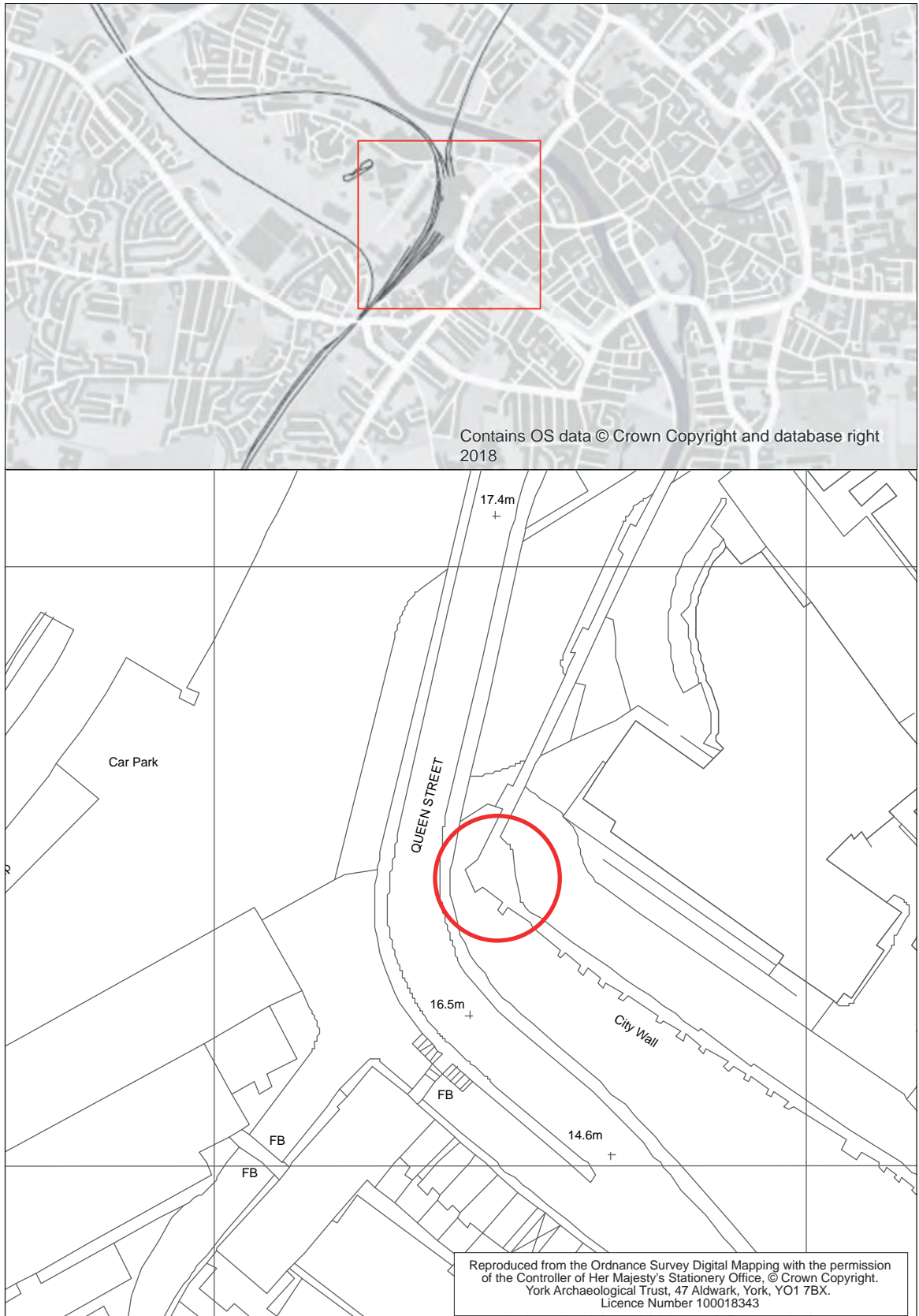


Figure 1 Site Location 1:25000 and 1:1000 @A4

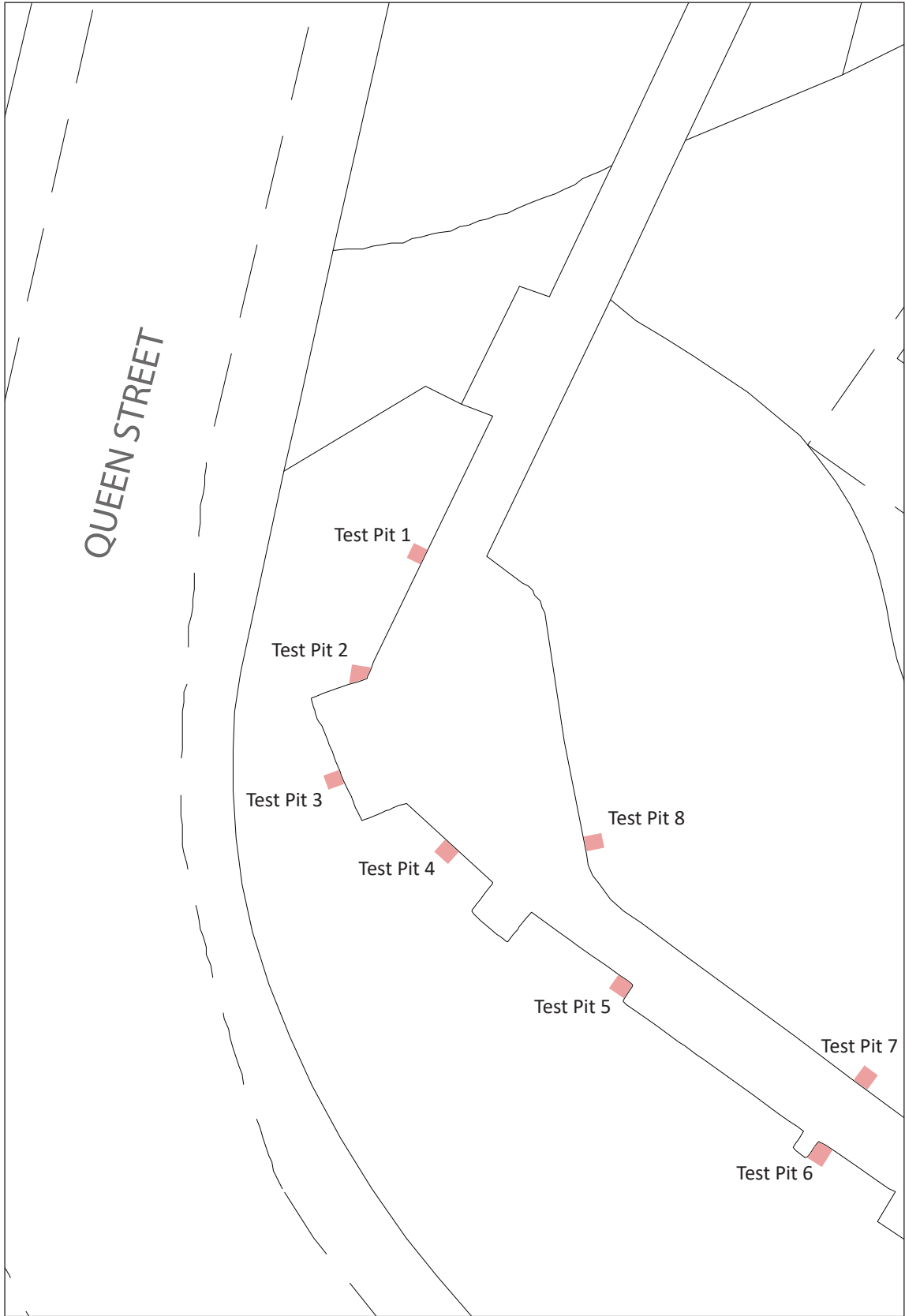


Figure 2 Works Location 1:200 @A4

Rectified Photograph and Elevation 1:10

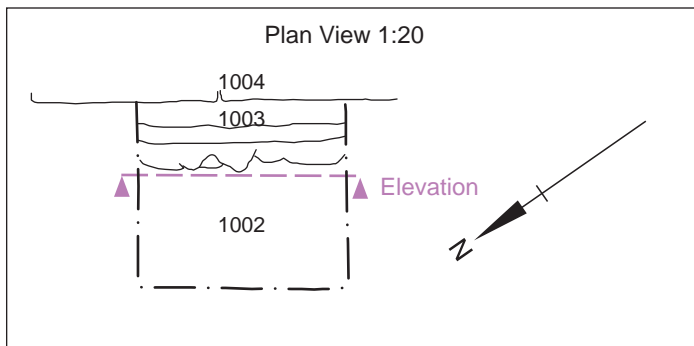
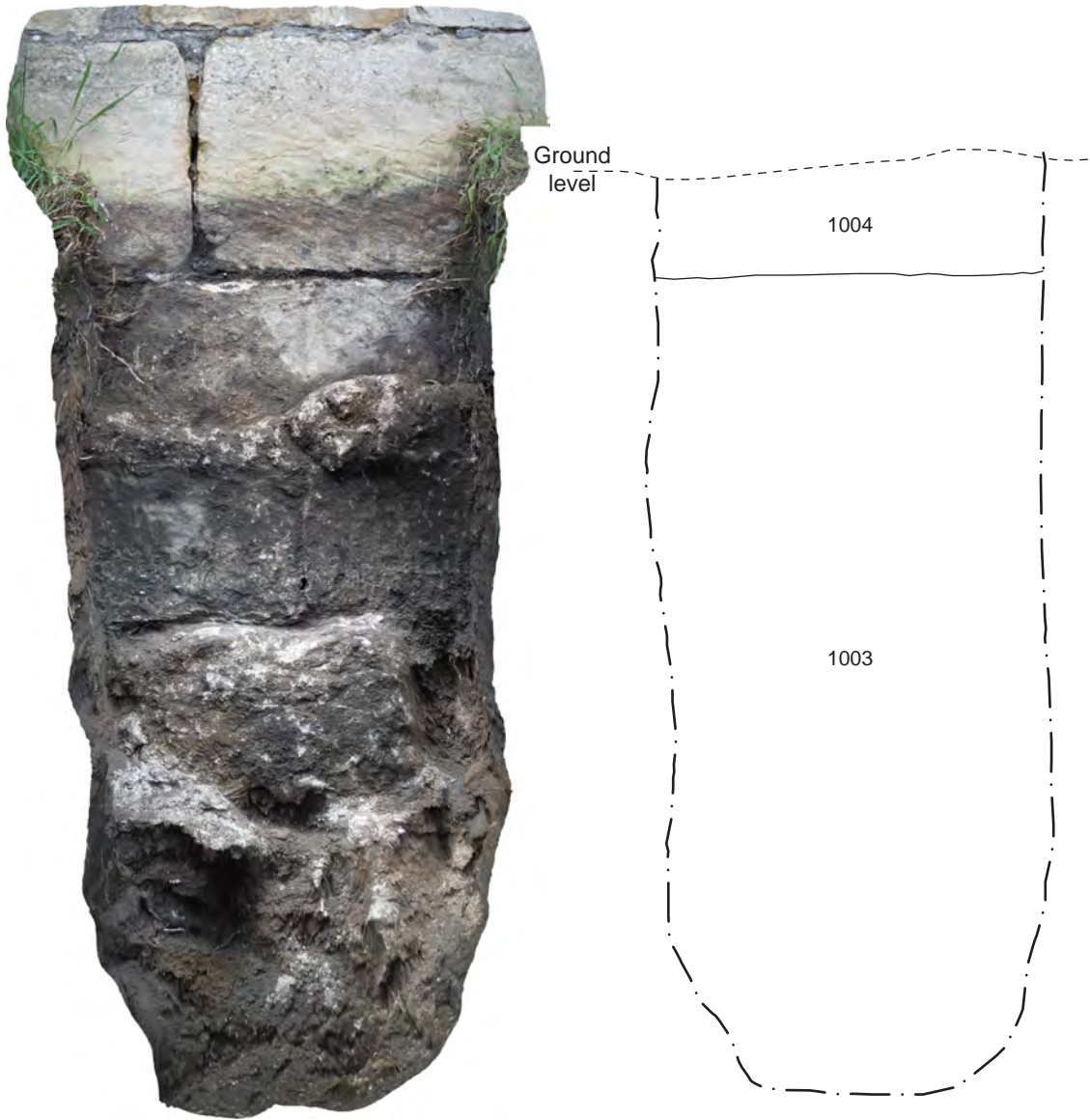


Figure 3 Test Pit 1 @A4

Rectified Photograph and Elevation 1:10

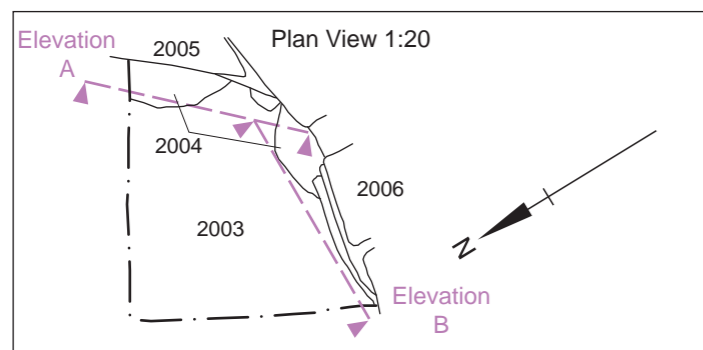
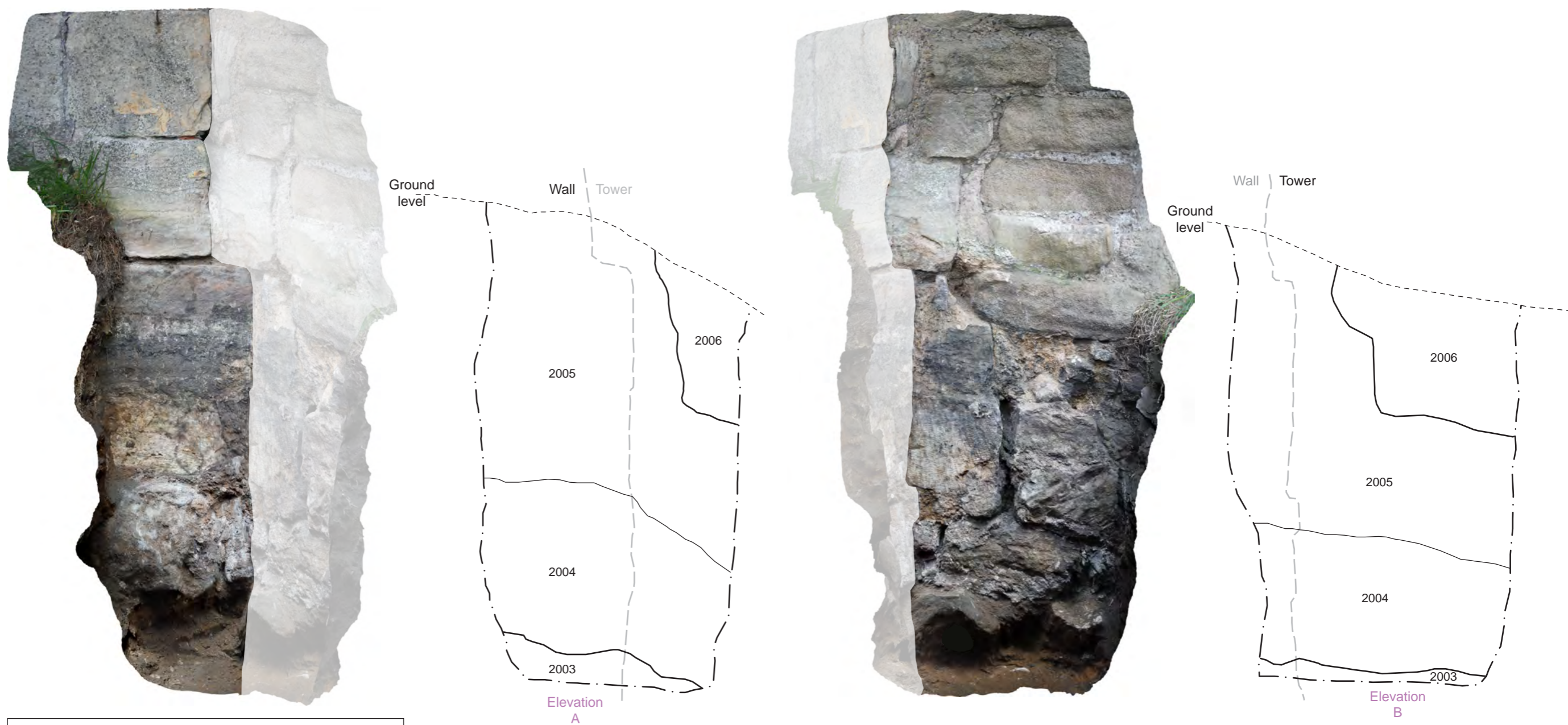


Figure 4 Test Pit 2 @A3

Rectified Photograph and Elevation 1:10

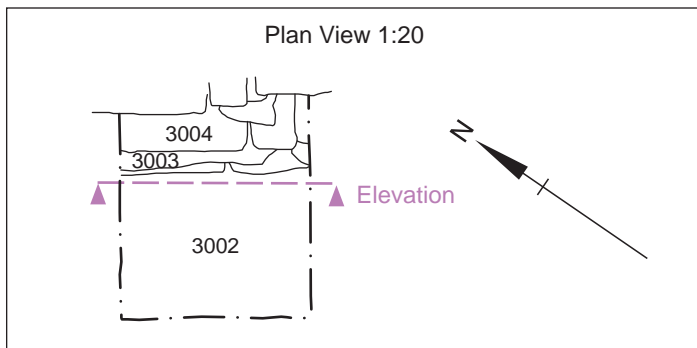
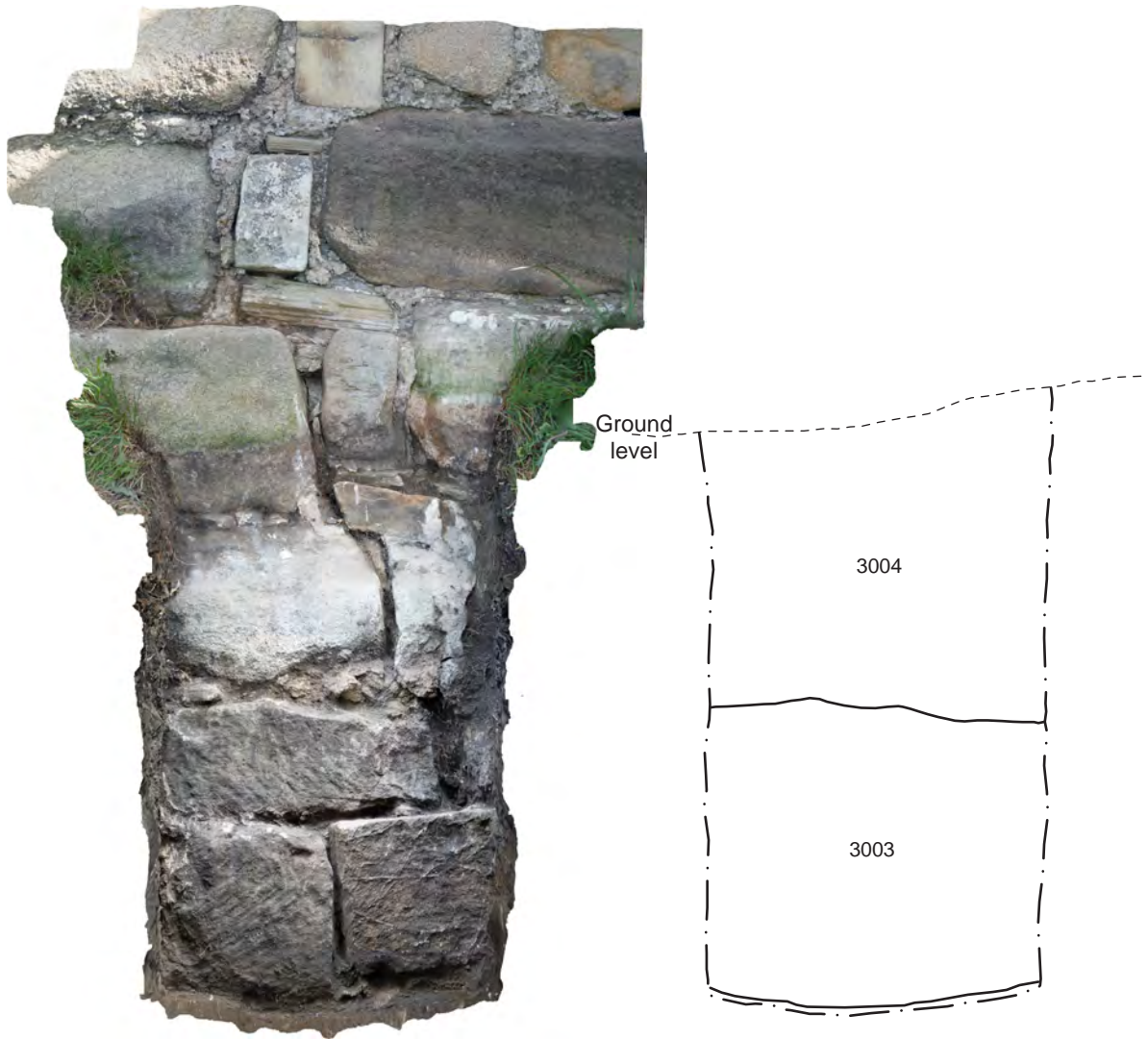


Figure 5 Test Pit 3 @A4

Rectified Photograph and Elevation 1:10

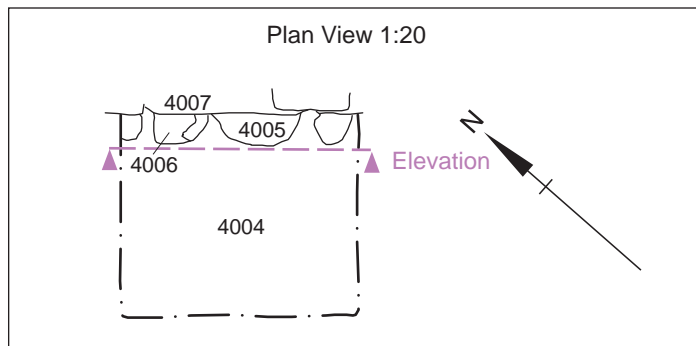
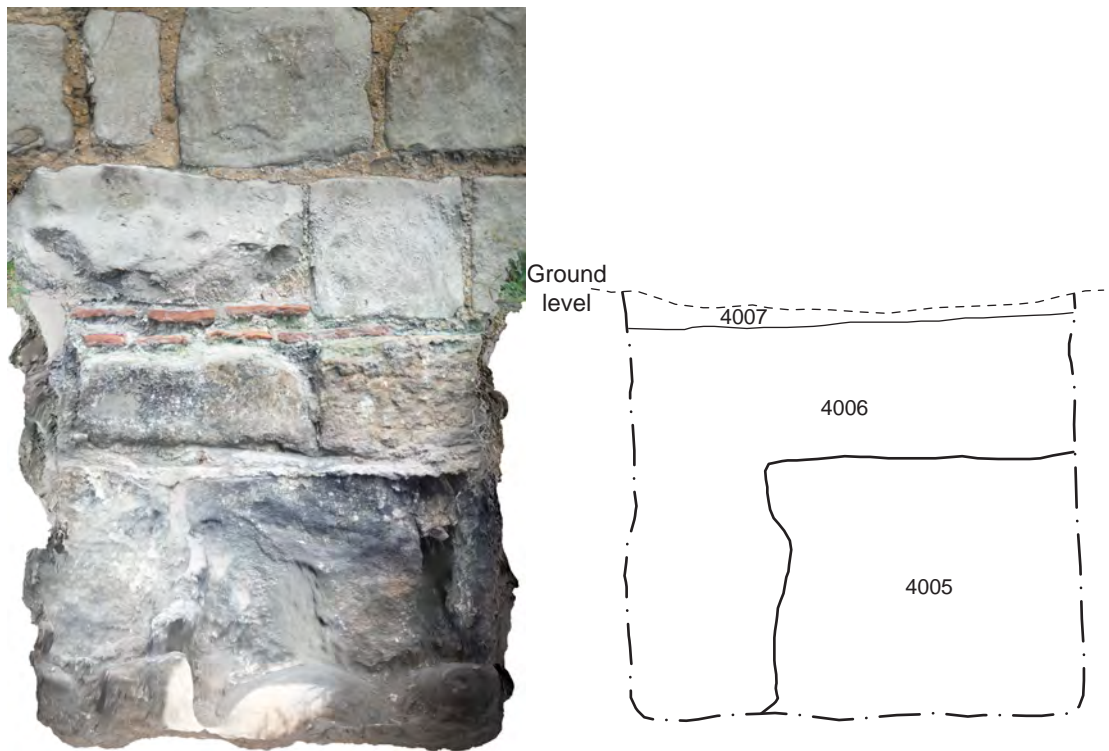


Figure 6 Test Pit 4 @A4

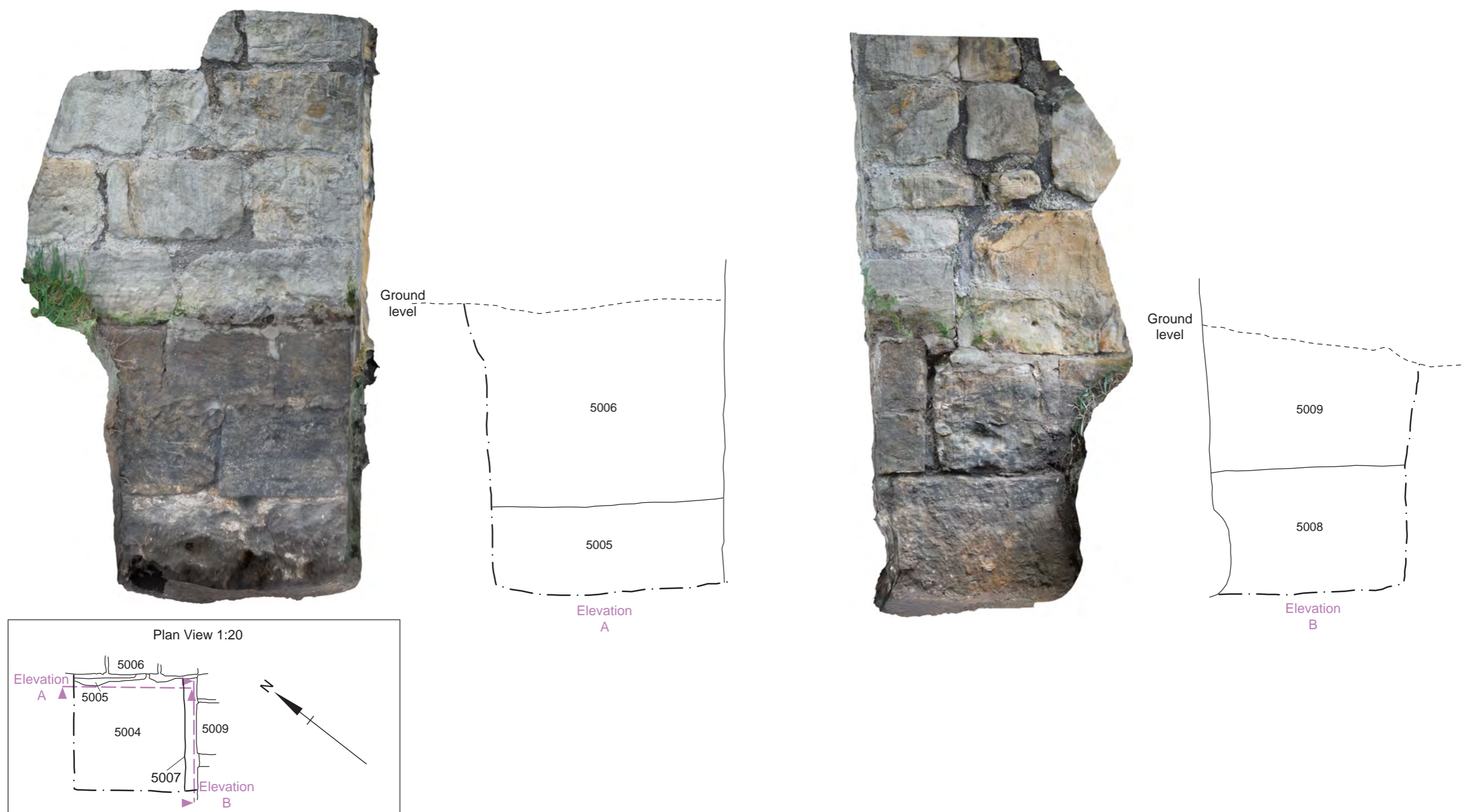


Figure 7 Test Pit 5 @A3

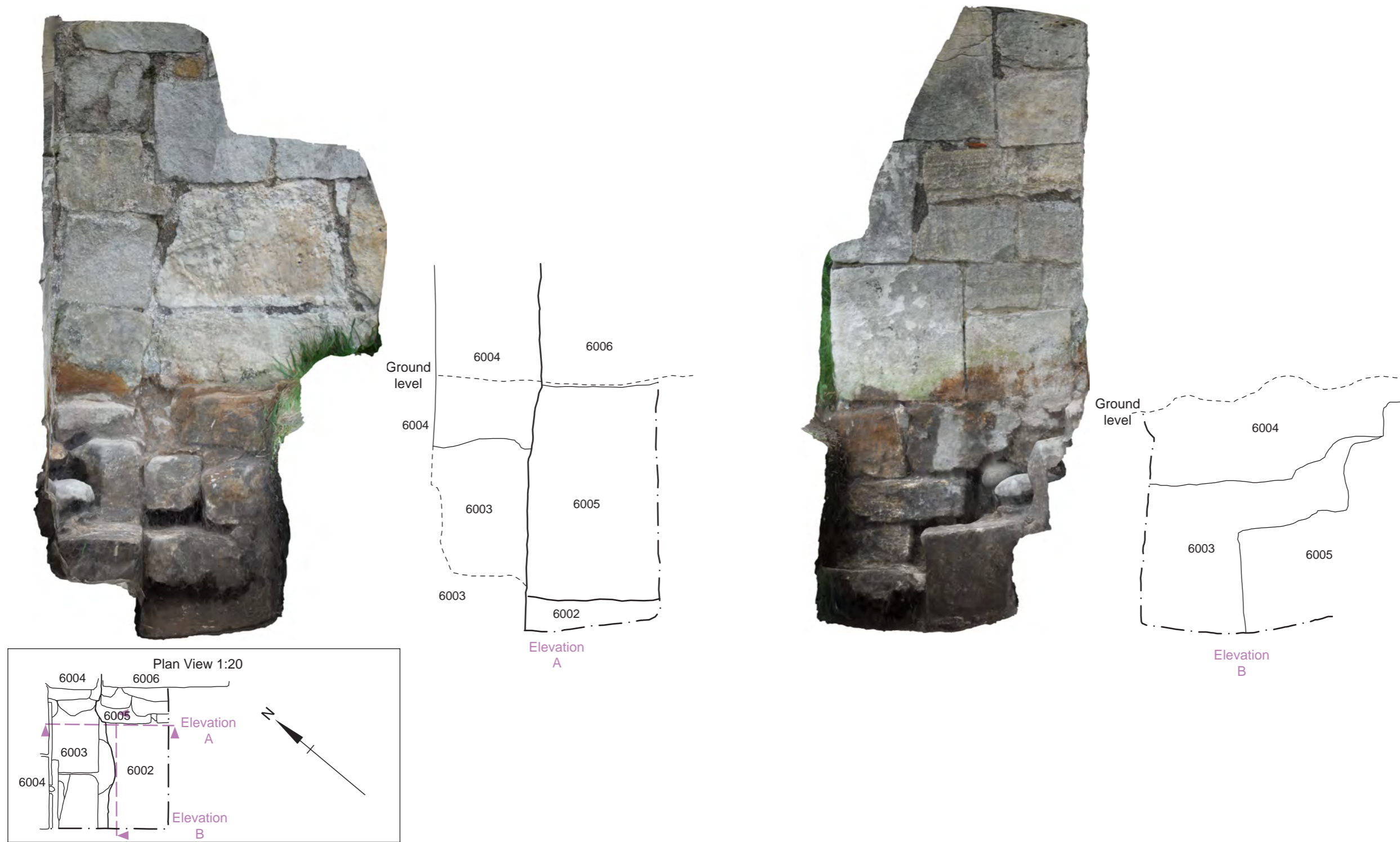


Figure 8 Test Pit 6 @A3

Rectified Photograph and Elevation 1:10

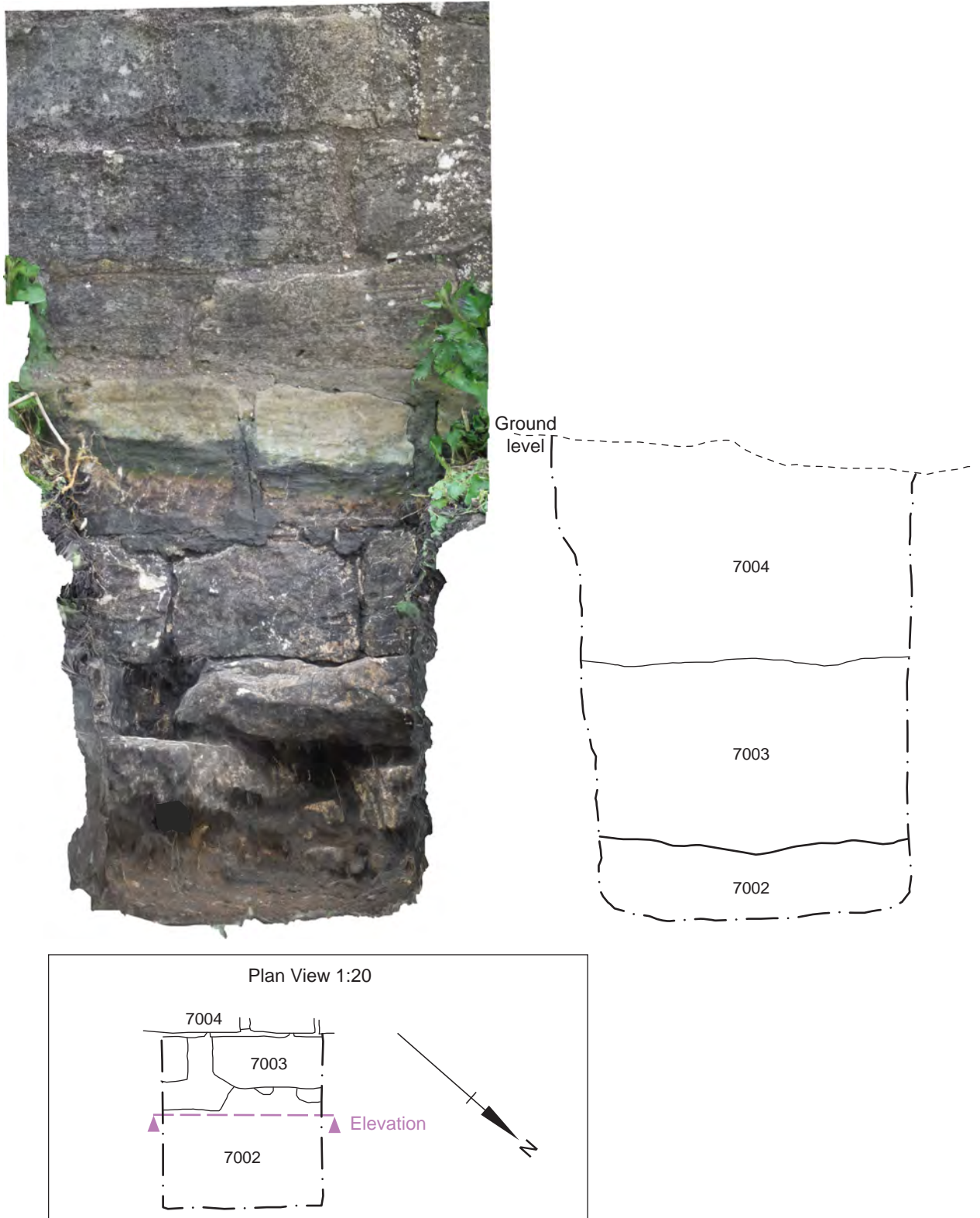


Figure 9 Test Pit 7 @A4

Rectified Photograph and Elevation 1:10

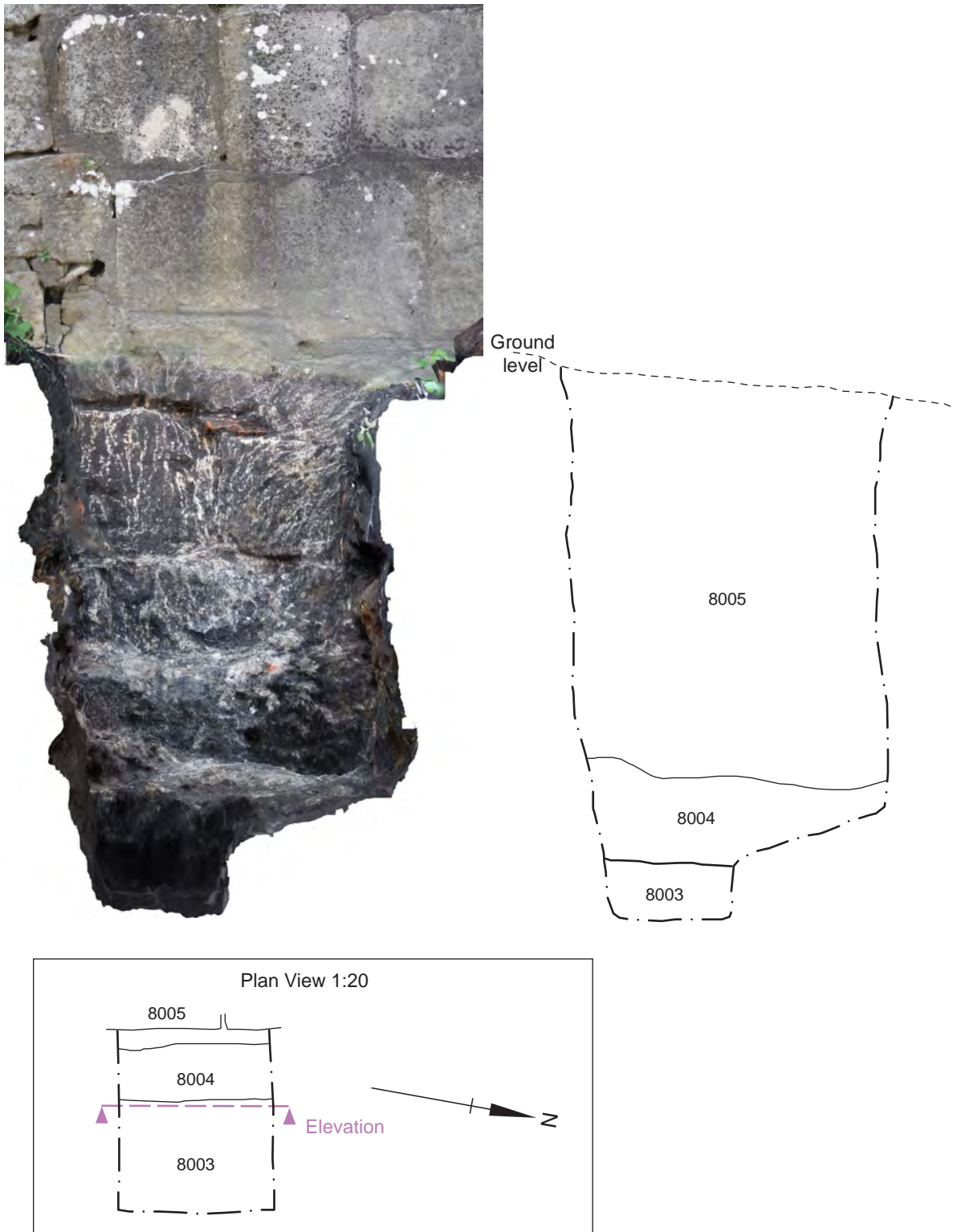


Figure 10 Test Pit 8 @A4



YORK ARCHAEOLOGICAL TRUST

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