



Figure 30 Looking south to TT1-3 note mortar rich layer below brown hardened clay floor (C1-3-06) in section face.



Figure 31 Foundation pads exposed between TT1-1 and TT1-3, facing west.

## T1-4

TT1-4 was located in the southeast of Area 1 to the east of the southern quay wall from the projecting bay which was formerly the site of Golden Mills. The trench was orientated N/S, measuring 10m by 1.6m. It was dug to a maximum depth of 1.7m. The southern portion of this trench, 4.5m from the end, had previously been exposed in the excavations of 1987/88 and backfilled with angular stone aggregate.

### Results

Excavations under the modern surface layers of brick paving, bedding sand and gravel exposed a modern dump of stone 5.5m from the south (C1-3-04). This infill relates to O’Rahilly’s excavations in the winter of 1987/88. During these investigations, a medieval bridge connecting the outer wheelhouse of the mill to a postern gate on the city wall had been identified. The stony fill was 1.7m deep to the base of the trench (effected by tidal flooding).

In the northern half of the cutting beneath a layer of builders infill (C1-4-05), with inclusions of brick, plaster and modern debris relating to the demolition of Nolan’s cottages was a corroded gas pipe running to the immediate south of a brick lined stone structure. This structure running 1.6m north south and returning to east aligns with a toilet outhouse to the rear of the southern row of the cottages as shown on the 25” OS map. To the immediate south of this outhouse was the remains of a brick-built manhole with two 6” ceramic foul sewer pipes, one running into the east section face and the other running N/S along the western section face cutting through a thick rubble foundation (C1-4-09). The invert level for this western pipe was approximately 1.1m (Figure 29). Notably a sewer shaft was recorded in O’Rahilly’s sketch plan draining into the river at the corner of the projecting bay and the quay wall.

The rubble stone foundation, under the infilled layers corresponds to O’Rahilly’s bridge. This feature and associated collapse measured 5.2m N/S. The upper, better preserved, solid core was 2.8m wide (O’Rahilly’s bridge measured 2.75) by 0.6m high and was bonded with a yellow white gritty mortar. At a lower level, particularly to the north was a dump of abutting bonded stone 2.2m wide. The sides of the foundation were rough, the facing stone, having presumably been robbed out. A hand dug sondage was attempted to determine the depth of the wall but was abandoned due to flooding.

### Conclusion

Excavations in TT1-4 exposed modern deposits at the northern end comprising the demolished remains and services for Nolan’s cottages built in 1895. Beneath this to the south and cut by a 6” sewer pipe was a poorly preserved rubble foundation that had been previously exposed in 1988 and identified as a medieval bridge connecting a mill to an access point on the town wall. This foundation was 2.8m wide and was exposed for a height of 0.6m with an associated mortared rubble dump to its north. The foundation represents the earliest feature found in Area 1. The bridge and mill date to the 14th-15th century and featured in Phillips’ illustration of 1685; they were altered and adapted over the centuries and referred to as Golden Mill. The mill’s superstructure and western most range was demolished in 1870. Following recording the trench was covered in geo-textile and infilled.

Table 5: TT1-4 Summary of results

|                                 |                              |
|---------------------------------|------------------------------|
| <b>Trench number</b>            | TT1-4                        |
| <b>Dates excavated</b>          | 8 <sup>th</sup> June 2020    |
| <b>Location</b>                 | Mill and Brewery Site        |
| <b>Co-ordinates (NW corner)</b> | E 557693.2684, N 657682.0539 |
| <b>Dimensions, orientation</b>  | L: 10m N/W, W: 1.6m E/W      |
| <b>Ground level (ASL)</b>       | 4.1715m                      |

|                                    |  |
|------------------------------------|--|
| <b>Maximum depth</b>               | 1.7m   |
| <b>Services exposed</b>            | 6" Ceramic sewer pipe running along western side of trench invert level approximately 1m, corroded gas pipe running E/W, foundation of brick built outdoor toilet.   |
| <b>Archaeological significance</b> | Exposed rubble core of bridge connecting to mill   |
| <b>Recorded contexts</b>           | <p>C1-4-01: Brick paving 80mm</p> <p>C1-4-02: sandy bedding 50mm</p> <p>C1-4-03: modern gravel layer 350mm</p> <p>C1-3-04: Modern clean angular stone infill found in the south of the trench. Dumped following O'Rahilly's excavations in 1987/88 continued to base of trench 1.6m deep</p> <p>C1-4-05: Compact brown silty builders fill of brick, slate, plaster and modern debris including foul sewer and fill, invert level for sewer 1.05m</p> <p>C1-4-06: Stoney infill, rubble stone in grey brown silt</p> <p>C1-4-07: Limestone wall faced with brick to north of trench 400mm thick (exposed) by 400mm deep.</p> <p>C1-4-08: Three courses of brick coursing. Found above manhole for foul sewer</p> <p>C1-4-09: Bonded stone foundation/rubble core. This foundation corresponds to O'Rahilly's bridge for the mill. Built of roughly hewn, angular stones. Note: foul sewer impacted on the bridge along western section face.</p> <p>C1-4-010 base deposit of dark silty clay</p> |



Figure 32 Drone image of TT1-4 showing rubble core foundation (bridge) C1-4-09.

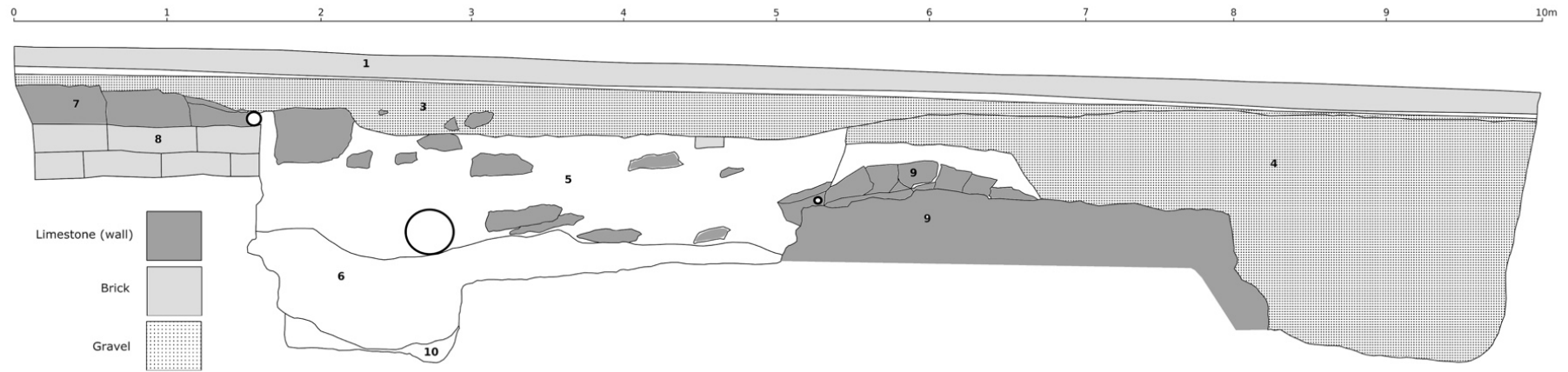


Figure 33 TT1-4 profile drawing of west-facing wall



Figure 34 Looking north to manhole and remains of possible outhouse for Nolan's Cottages, sewer pipe to right cut through wall foundation.



Figure 35 Looking south to bridge rubble core, not clean stone fill from 1980's infill.



Figure 36 Looking south across TT5-1

#### TT1-5

TT1-5, an extension to the original programme, was excavated to establish the relationship between the western barrel arch and the mill building. The trench was located 1.4m to the south of TT1-3 and 4.4m from the western quay wall. It measured 4.2m N/S by 1.6m E/W and was excavated to 0.8m depth.

#### Results

This trench was dug to a maximum depth of 0.8m confined to a 2.25m square pit with stone-built features to the west, north west and a corroded pipe to the south (figure 34 & 35). The pit contained builders fill (C1-4-04) and modern debris butting up against a poorly preserved section of wall along the western edge (C1-4-06). This wall interpreted as the abutment wall for the westernmost tunnel arch was exposed for a depth of 820mm and comprised of two courses of stone bonded with a white mortar. To the north and north west of the trench was a right angle of a stone wall measuring 1.55m E/W by 1.3m N/S. The relationship between these walls was unclear the northernmost wall was 1m wide, the return to the south was 500mm wide. This return had one yellow brick in its fabric. To the immediate east of this a small layer of cobbles. The cobbles may represent the enclosed yard of the City Brewery. Due to the constraints of the features and as this area was not going to be impacted by the proposal, the trench was covered and backfilled.

#### Conclusion

This trench had a maximum depth of 820mm and exposed along the western section face a poorly preserved wall that aligns with the abutment wall for the western barrel vault (C1-4-06). The foundation running NNW to SSE may be related to Nolan's cottages or may be the rear boundary wall for Goldens mills as it interfaces with a small section of cobbles that may represent the yard of the city brewery.

Table 6: TT1-5 Summary of results

|                                    |   |
|------------------------------------|---|
| <b>Trench number</b>               | TT1-5   |
| <b>Dates excavated</b>             | 8 <sup>th</sup> June 2020   |
| <b>Location</b>                    | Mill and Brewery Site   |
| <b>Co-ordinates (NW corner)</b>    | E 557689.7037, N 657683.1315  |
| <b>Dimensions, orientation</b>     | L: 4.2m N/S, W: 1.6m E/W  |
| <b>Ground level (ASL)</b>          | 3.9689m   |
| <b>Maximum depth</b>               | 820mm   |
| <b>Services exposed</b>            | Corroded gas pipe (same as identified in TT1-4)   |
| <b>Archaeological significance</b> | Exposed abutment wall for barrel vault and  |
| <b>Recorded contexts</b>           | C1-4-01: Brick paving 80mm<br>C1-4-02: sandy bedding 50mm<br>C1-4-03: modern gravel layer 350mm<br>C1-4-04: Compact brown silty builders' fill<br>C1-4-05: Small section of stone cobbles below gravel surface<br>C1-4-06 Right angle of stone-built wall at NE corner of trench.<br>C1-4-06 Abutment wall for westernmost tunnel |



Figure 37 Looking north to TT5-5





Figure 38 TT5-5 Looking south, wall to right is abutment wall of western barrel arch.

*Excerpts from report on excavations in the locality of Area 1 (O’Rahilly and Hodkinson 1989)*

**Phase I:**

*Phase I of activity on Site 3 would have consisted of the building Of the City Wall and the Bridge. The City Wall was exposed in two cuttings (4 & 3), for a distance of 21.5m. The Wall was located near the north wall Of the Gaol, running in a SSW. direction. The southern end of the wall had been broken and was not located again in any ff the cuttings made within the Gaol. The section Of City Wall was 2m wide and was defaced on the western side, (for most of its extant height), While the eastern face seems to be intact.*

*A 16.5m Stretch of the City Wall Was exposed within the Nolan's Cottages area running on a north/south axis and broken by the later Brewery Wall (174) at the south end. The wall Was 2m wide approximately 3.4m in height. The inside face was vertical with a double stepped plinth, while the external face was vertical for 1m then battered and resting on a single step plinth. The wall was built using large blocks of cut stone and was in an extremely good state of preservation. On top of the Wall, at its southern end, was a paved area constituting the only surviving section of original surface on the exposed length of the City Wall It consisted of an area of ca. 2m<sup>2</sup>, edged with large rectangular shaped stones. The central area was filled with smaller, more rounded stones and even smaller pebbles filled the remaining spaces. The surface was worn smooth and polished by traffic. It represents a gateway through the Wall and in its north-west corner is what is presumed to be a spud stone, suggesting that a door hung flush with the outside face of the City Wall (and presumably opened outwards??). Bonded into the outside face of the Wall and directly in line with this gateway, a second wall runs westwards. This wall, hereafter referred to as the Bridge, consisted of two arches and a return wall at its western end suggests the presence of a structure here. This latter was bonded to the south side of the Bridge but could only be exposed for 3m. It is therefore difficult to accurately interpret its exact function as yet.*

*The Bridge measured 2.75m wide and was uncovered for 23m of its length. At eastern end, the south face of the arch was completely defaced, presumably by the building of the Brewery Wall (174). Similarly, a portion of the outer arch on the same face was removed by the later insertion of a sewer shaft. The span of the arches is 5.35m and 5.7m and they were built on wicker centering, the impression of which survives on the plaster/mortar. At no point was the base of the Bridge defined -If the City Wall is contemporary with King John's Castle, then both it and the Bridge are 13th cent in date. If however, the Wall is later than the Castle, then on the strength of the cartographic evidence, it was mainly constructed prior to the late 16th cent. A map dated to 1590 and at least one other 16th century map portrays the City Wall extending south from the south-west tower of the Castle with a bridge at right angles leading out to a mill located in the river. Whatever the date of the Wall and the Bridge, they are the earliest features on this section of the site.*

## *Phase 2*

*A tunnel was built abutting and totally obscuring the northern face of the outer arch and a further shorter section continued to the south of the arch. A partial collapse of the tunnel wall at this point allowed access to both the underside of the arch and the interior of the tunnel. The latter's northern section is 15m long, 3m wide and approximately 2m high and is completely and apparently deliberately blocked at the northern extremity by a pile of rubble Stones. The southern section is 1.25m long and narrows both in height (1.6m) and in width (1.3). It is vertically blocked by a wall, (See below-phase 4). The tunnel has an arched roof and seems to have been constructed using some form of plank centering. There is a shaft set in the roof just north-east of the Bridge arch. This measures 1m deep and 0.7m', its top would presumably have been flush with the contemporary ground surface allowing air and/or light into the tunnel. Despite the blocking, the tunnel is tidal and there is a considerable depth (min 0.5m), of river mud on its 'floor'. The tunnel post-dates the Bridge but its chronological relationship with the Brewery is uncertain. It underlay a cobbled surface which is presumed to belong to the Brewery, thus suggesting that it pre-dates the latter. However, there is no indication on any of the pre-1823 maps that the area to north of the Brewery structure was backfilled and presumably the tunnel would not have been necessary if the area was open.*

*The City Brewery was built 1739 (Date Of the wall plaque which survived in the gable wall Of Nolan's Cottages). The north wall of this building was located to the south of the Bridge and ran on an east-west axis parallel to it. The south wall was located in cut 25. Both were later reused as the foundations for the front and back walls of the Cottages. The north-south running wall (181), which overlies the Bridge and abuts the southern Brewery wall, (174), would have been the west boundary wall of the Brewery courtyard, (see 1840 map). The Brewery wall and the intermittent cobbled and flagstone flooring were the latest features exposed.*

## *Recommendations:*

*Although large area of this section of Site 3 were uncovered and many problems were solved, there are several remaining questions which need to be answered. This can only be done by further excavation. Since the stratigraphy is minimal, these investigations could take the form of following exposed features using a machine and also by making a few more cuttings. Once the archaeological questions were answered and the maximum of information had to be retrieved, the question would then be What to do with the features.*

*There is no doubt that the early features, Cie. The City Wall, the Bridge and the Quay/Retaining Wall uncovered are of major archaeological importance at both local and national level and it is essential that they remain intact. While I am aware that it is not now feasible to alter the plans for the Civic Office Complex, I would like it to go on the record that I recommend that, no new building should occur that would obscure these features, and that they be preserved and ultimately presented for public viewing. The siting of the Council Chamber over the majority of the exposed section of the City Wall and the eastern portion of the Bridge, including the entire inner arch, is I feel, a step which may be regretted in the future.*

## Area 2

Area 2 was located in a paved area between the Court House and Council buildings. Prior to this, based on historic cartography, the area would have generally been north west of the enlarged harbour complex as depicted on both Speed's 1610 map and Phillips' 1685 map. The trench was probably on the riverside of the north-south running wall that returned at an angle from the quay terminating in the north tower guarding the harbour entrance. In the late 18th century this land had been reclaimed and infilled. The general area was known as Deans Close a reference to the former residence of the Dean of St. Mary's Church. This Medieval house (SMR LI005-017169-) was located on Newgate Lane West 60m to the NE of the trench.

Between 1811 -13 Deans Close was developed into the City Gaol to a design of John Nash (1752-1805). According to Samuel Lewis's *Topographical Dictionary of Ireland* (1837) "The city gaol, in the old town, is a gloomy quadrangular edifice, with which the old county gaol is now united; but the buildings do not admit of proper classification, or sufficient means of employment. Yet, notwithstanding these disadvantages, it is remarkably well regulated, orderly, and clean."

Within the complex were cell blocks for male and female prisoners, debtors' cells – male, female, master and pauper, a back mill, convicts' yard, front mill, hospital, cook house and governor's house. By the late 19th century, it was exclusively a female prison, it closed its doors in 1904 (Potter, 2006a, 206) and subsequently (1907) became Geary's Biscuit Factory. The factory operated from 1907 to 1977. Following its closure, the buildings were demolished in 1988 to make way for the construction of Limerick City Hall, completed in 1990.

### TT2-1

Trench TT2-1 was located west of a gated entrance between the Court House and City and County Council buildings. It was aligned WNW/ESE and measured 4m length by 1m width, The location is directly south of Little Creagh Lane, 25m east of TT7-1 and approximately 30m east-southeast of Bridge Street and 10m north of the parapet wall of the quay above the Abbey River. The trench was aligned northeast/southwest and measured 8.8m long by 1.6m wide and was dug to a depth of 1.6m.

### Background

TT2-1 was located near the precincts of the Old City Gaol. It is proposed to install a new gravity sewer in this area following the decommissioning of a pumped foul sewer.

### Results

Beneath the brick paving and sand bedding was a thick layer of modern aggregate layers that overlay a mixed infill with frequent brick and cobble sized stone in a brown silty sand matrix 220-320mm (C2-1-04). Below this a thin black silty layer that covered the top of a solidly built, random uncoursed, rubble limestone wall foundation approximately 3 ½ foot thick (1.7m) wide by 1.68m deep bonded by a grey white gritty mortar (C2-1-11). The upper two layers of stone were relatively even faced, the lower uncoursed levels were built of rougher hewn stone that protruded and inclined outwards to the exposed base. This wall aligns with the southern boundary wall of the female prison. Abutting the wall at the top was a yellow brown mortar rich layer 200-250mm thick over a dark sandy layer with water rolled stones, broken slate and red brick, the latter representing the demolition phase of the prison/factory. The primary base layer was a mix of Grey brown sandy clay with inclusions of stone, brick, ash, large black glazed terracotta fragments and occasional oyster shell 800mm – 1.3m deep (C2-1-08). At the western end of the trench was a patchy mortar layer at base only visible in pockets associated with a large flat unbonded stone

### Conclusion

Excavations in TT2-1 revealed the boundary of the prison wall built in 1813 with successive abutting layers of infilled from the late 18<sup>th</sup> century. The wall was not bottomed out due to flooding

Table 7: TT2-1 Summary of results

|                                    |   |
|------------------------------------|---|
| <b>Trench number</b>               | TT2-1   |
| <b>Dates excavated</b>             | 21-22/05/2020   |
| <b>Location</b>                    | Public realm land between Court House and Limerick City and County Hall   |
| <b>Co-ordinates (NW corner)</b>    | E 557715.3978, N 657605.9924  |
| <b>Dimensions, orientation</b>     | L: 8.8m WNW/ESE, W: 1.6m N/S  |
| <b>Ground level (ASL)</b>          | 3.8634m   |
| <b>Maximum depth</b>               | 1.6m  |
| <b>Services exposed</b>            | 2 grey 4" ducts<br>Brown 4" foul sewer to west end of trench -depth 1m  |
| <b>Archaeological significance</b> | Exposed foundation of 1.8m wide limestone rubble wall associated with the female prison built by 1813   |
| <b>Recorded contexts</b>           | <p>C2-1-01: Interlocked brick paving 80mm</p> <p>C2-1-02: Yellow sand bedding 80-120mm</p> <p>C2-1-03: Grey black compact modern aggregate hardcore 120-220m</p> <p>C2-1-04: Modern infill with brick, cobble sized stone stone in brown silty sand 220-320mm</p> <p>C2-1-05: Black compacted silty clay with 100mm</p> <p>C2-1-06: Yellow brown mortar rich surface at same level as the top of the foundation wall 420-470m.</p> <p>C2-1-07: Dark layer under mortar composed of water rolled stones, broken slate and red brick in sandy matrix 470-800c0m</p> <p>C2-1-08: Grey brown infill-composite layer of sandy clay with inclusions of stone, brick, ash, large black glazed terracotta fragments and occasional oyster shell 800mm – 1.3m</p> <p>C2-1-09: Yellow sandy layer at base of trench</p> <p>C2-1-10: Mortar layer at base only visible in pockets – Large flat stone recorded at western terminal of the trench; water inundated trench at 1.6m depth</p> <p>C2-1-11: Wall foundation – crosses trench at an ENE/WSW orientation, aligns with prison ward wall as shown on OS 25" map. The wall was exposed at approximately 380mm below the existing surface and had an angled length of 2.2m and a height of 1.68m. ) Upper two courses reasonably fair vertical face, the lower courses are built of larger more irregular stones, that protrude and jut, the wall is slightly inclined widening at the base.</p> |

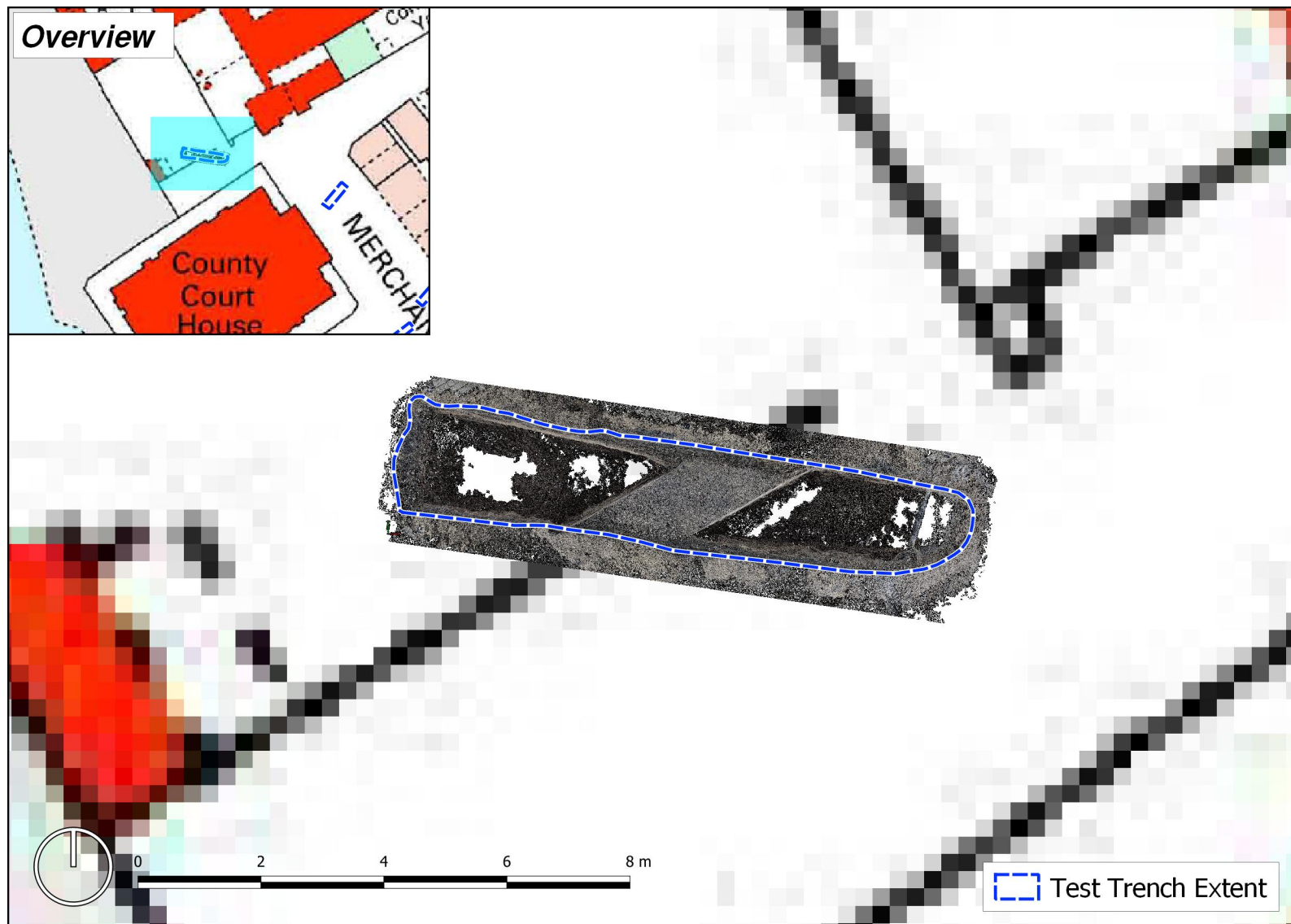


Figure 39 Map of archaeological testing in Area 2, overlaid on O'Flaherty 2010, Map 2, Limerick, 1840.

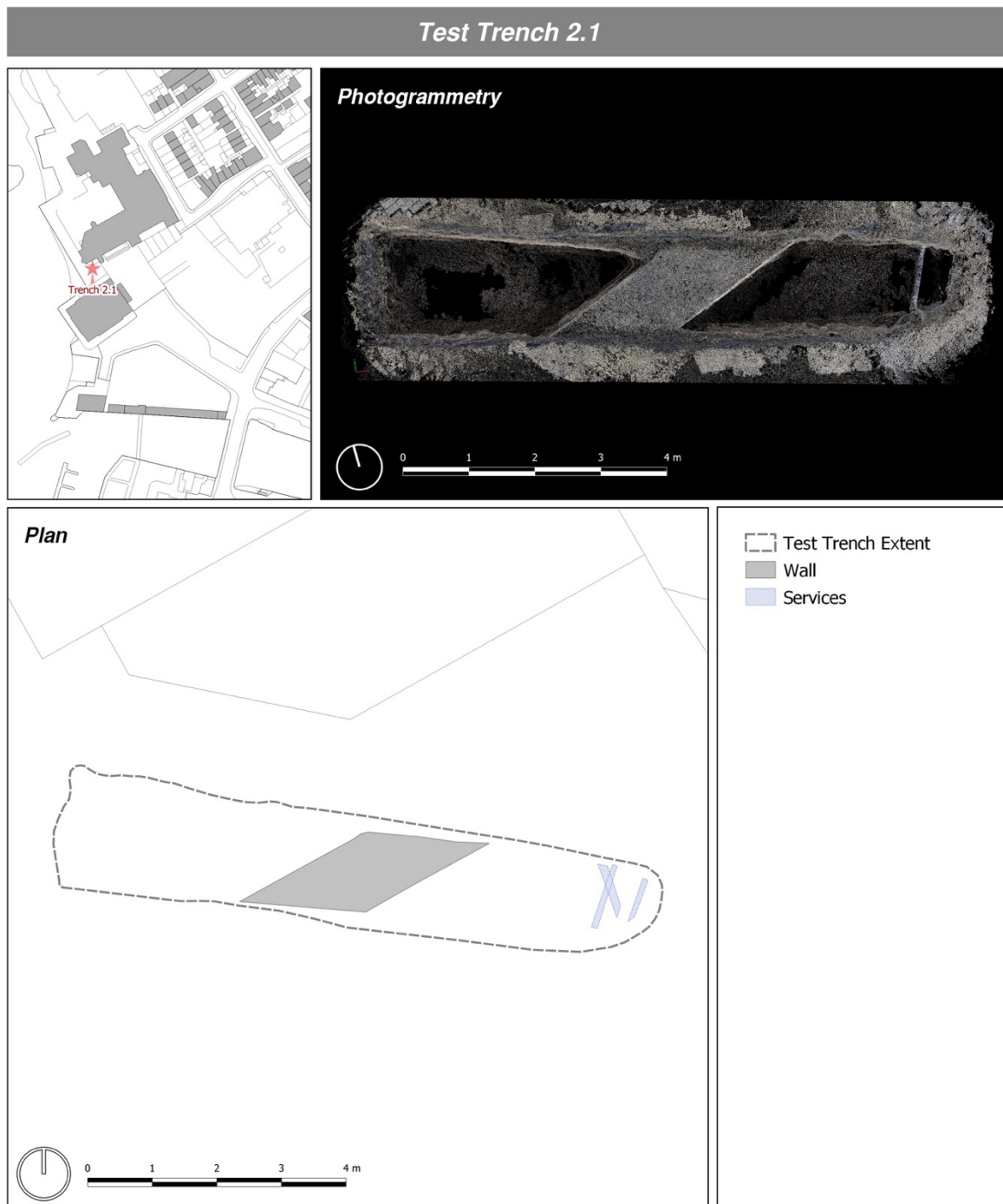


Figure 40 Plan drawing and photogrammetry of TT2-1



Figure 41 Looking east across TT2-1, the Old City Gaol wall built in 1811-1813.



Figure 42 West facing elevation of wall