



ARCH SITE

archaeological site
recording scheme

Site Record Form

NZAA SITE NUMBER: M36/302

SITE TYPE: Industrial

SITE NAME(s): Railway reclamation; northern
reclamation

DATE RECORDED:

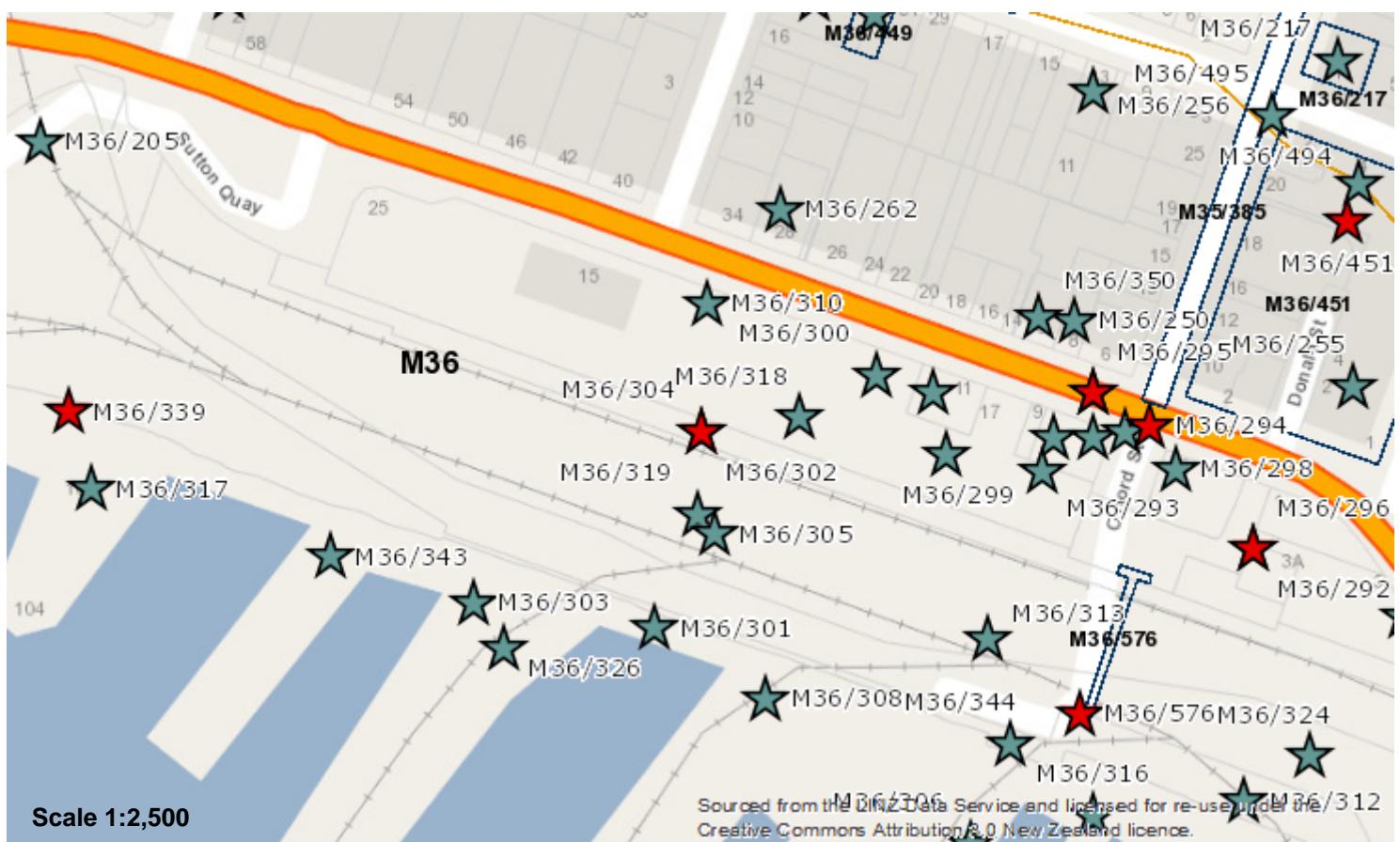
SITE COORDINATES (NZTM) Easting: 1577419

Northing: 5172066

Source: On Screen

IMPERIAL SITE NUMBER:

METRIC SITE NUMBER: M36/302



Finding aids to the location of the site

The foreshore between Simeon Quay and Oxford Street, extending from Norwich Quay to the foot of the wharves.

Brief description

Nineteenth century reclamation.

Recorded features

Other sites associated with this site

SITE RECORD HISTORY**NZAA SITE NUMBER:** M36/302**Site description**

Updated 05/09/2016 (Field visit), submitted by luketremlett , visited 25/06/2016 by Tremlett, Luke
 Grid reference (E1577419 / N5172066)

INTRODUCTION

The earthworks carried out here involved one stage of service trenching of an 11kV infrastructure roll-out at Lyttelton Port. This stage, stage 5a, involved excavating a 420 m long trench from the Oxford Street overbridge (to the Ferry Terminal) to the south side of the Sutton Quay gate between May and July 2016 under authority 2015/600. The land in which this trench was excavated was the railway reclamation (M36/302) formed in the mid-1860s. Here, works were carried out under on call procedure and routine weekly site visits were carried out by an archaeologist.

ARCHAEOLOGICAL MONITORING OF THE EARTHWORKS

The Stage 5a 11kV trenching works were carried out between 25 June and 13 July 2016 by Fulton Hogan Ltd, using a mechanical excavator and hydrovac, with Teri Anderson, Peter Mitchell and Luke Tremlett (Underground Overground Archaeology) monitoring the work. The earthworks carried out as part of these works mostly involved excavating a trench approximately 1 m deep and 1.5 m wide. The trenching to the east of the site near the Oxford Street overbridge also extended to approximately 1 m but varied in width between 200 mm to 2 m. A site plan was prepared showing the extent of the earthworks and the two archaeological sites that were intersected by the works (Figure 2).

A total of seven features were found during the works. While all these features were located within the railway yard reclamation, six are commented on below - one feature (Feature 7) has been recorded as its own archaeological site (M36/576) and information about this feature can be found under the relevant site record form.

Feature 1

Feature 1 was a timber plank found within the reclamation (Figure 3). This measured 200 x 300 mm in cross-section and was approximately 1 m long. It was not articulated with anything and appeared to have been discarded during the formation of the reclamation.

Feature 2 and 3

Feature 2 and 3 were timber piles found in the south side of the trench. Feature 2 had been cut at the bottom of the trench. It measured approximately 200 mm in diameter and was partially obscured by the southern baulk (Figure 4). Feature 3 was approximately 400 mm in diameter and extended to approximately 400 mm from ground surface (Figure 5). It remains unclear what structures these piles once belonged too. They remain in situ, and as such, no timber samples were taken.

Feature 4

Feature 4 was as a vague scatter of metal artefacts and faunal remains within the reclamation (Figure 6). The metal artefacts found within this deposit included a 250 mm long chisel, two unidentifiable metal fragments potentially cut from a larger machine, a bolt or rivet approximately 175 mm long and a 100 mm long railway spike. The faunal material found included a rib and mandible fragment belonging to a mammal species – probably sheep. This material appeared to have been thrown into the reclamation during its formation in the 1860s. As these artefacts were not from a secure context, they were not retained.

Feature 5

Feature 5 was found in the narrow trench immediately south of the Oxford Street overbridge (Feature 7). Here, two angular sections of concrete were found at the base of the trench which was at 1100 mm depth at this point. The southern-most concrete section measured 250 mm wide in the west baulk and 320 mm in the east. The other, found immediately north, was approximately 200 mm wide at the west baulk and extended into the middle of the trench where it terminated (Figure 8). Both remain in situ.

It is clear that the two sections of concrete belonging to Feature 5 were formed either during or subsequent to the construction of the railway yard reclamation. However, it remains unclear what this concrete were once associated with and what the intended purpose of it might have been.

Feature 6

Feature 6 was a vague scatter of industrial material found in the excavation immediately north of the Oxford Street overbridge. Here, a large metal ring 1.42 m in diameter was found lying flat approximately 200 mm above a slab of concrete at the base of the 1.2 m excavation (Figures 9, 10 and 11). Attached to this metal ring were large bolts and sections of timber that angled in towards the centre of the ring (Figure 10 and 11). Surrounding this ring and within the reclamation was a vague scatter of bricks, stone rubble and metal. The bricks were handmade slop/pallet moulded bricks without maker's marks that dated to the mid-late nineteenth century. This ring, and the material that appears to be associated with it, seem to be from an early piece of plant or equipment that was disposed of here. It is unclear what the industrial material belonged too. It is possible, however, that it was used in the formation of the reclamation. Much of this deposit was removed during

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the earthworks required for this project. However, material from Feature 6 remains in situ in the north and south baulks and the concrete slab which formed the bottom of this feature remained in situ.

Stratigraphy

The stratigraphy observed within the reclamation during trenching works appeared relatively uniform. A 20th or 21st century layer of asphalt and/or hard fill was found on top of reclamation fill. The asphalt, when present, was approximately 80 mm thick. The hard fill varied between 300 and 500 mm thick. The reclamation fill to the east of the point marked as 'STRAT 1' on the site plan was a yellow layer of clay. The reclamation west of this was a layer of stone rubble and red scoria fill which often appeared to be quite red (consistent with fill from the rail tunnel) on top of yellow clay (Figure 12). This yellow clay, which was the same material as that seen to the east of 'STRAT 1', was seen intermittently in the base of the excavation west of this point. Therefore, it is likely that clay underlies the stone reclamation fill in other areas across the rail yard. Further excavation to a greater depth would be required to prove this. Reclamation fill extended to the depth of the trench in all areas except those that had been heavily disturbed by earthworks for modern services. Here, hard fill was found to depth.

INTERPRETATION

The railway yard reclamation observed during the works was found intact underneath modern fill layers. The stratigraphy observed here was either yellow clay or a rubble/stone matrix. The stone graded between dark grey very dense cobbles and a red scoria rubble matrix. Because the red scoria was present through much of this layer, it seems likely that this fill is indeed stone quarried from the Port Hills during the construction of the rail tunnel and deposited here as fill for reclamation. This was speculated by Rice (2004: 35) and the archaeological evidence encountered here at least in part validates this speculation – at least some of the fill used in the railway yard reclamation came from the rail tunnel.

No report was submitted for this stage of 11kV trenching – this site record form was agreed upon to be the final documentation of these specific earthworks by Heritage New Zealand, Underground Overground Archaeology and Lyttelton Port Company.

Updated 28/08/2014 (other), submitted by matthewcarter

Grid reference (E1577419 / N5172066)

In 1865 a contract was let for building an embankment (700 feet (213 m) long) faced with a wooden sea wall from the reclamation at the tunnel mouth to the old Government jetty (Scotter 1968:74). This enclosed area was then reclaimed in 1867, providing much needed flat ground for the railway yard. Some of the fill for this area may have come from the railway tunnel that connected Lyttelton and Christchurch (Rice 2004: 35).

Condition of the site

Updated 05/09/2016 (Field visit), submitted by luketremlett , visited 25/06/2016 by Tremlett, Luke

The railway yard reclamation observed during the works was found intact underneath modern fill layers.

Updated 28/08/2014 (other), submitted by matthewcarter

High. The reclaimed land remains in situ.

Statement of condition

Current land use:

Updated: 11/08/2016 - Coastal margins, Industrial/ commercial

Threats:

Updated: 11/08/2016 - Property development

SITE RECORD INVENTORY

NZAA SITE NUMBER: M36/302

Supporting documentation held in ArchSite

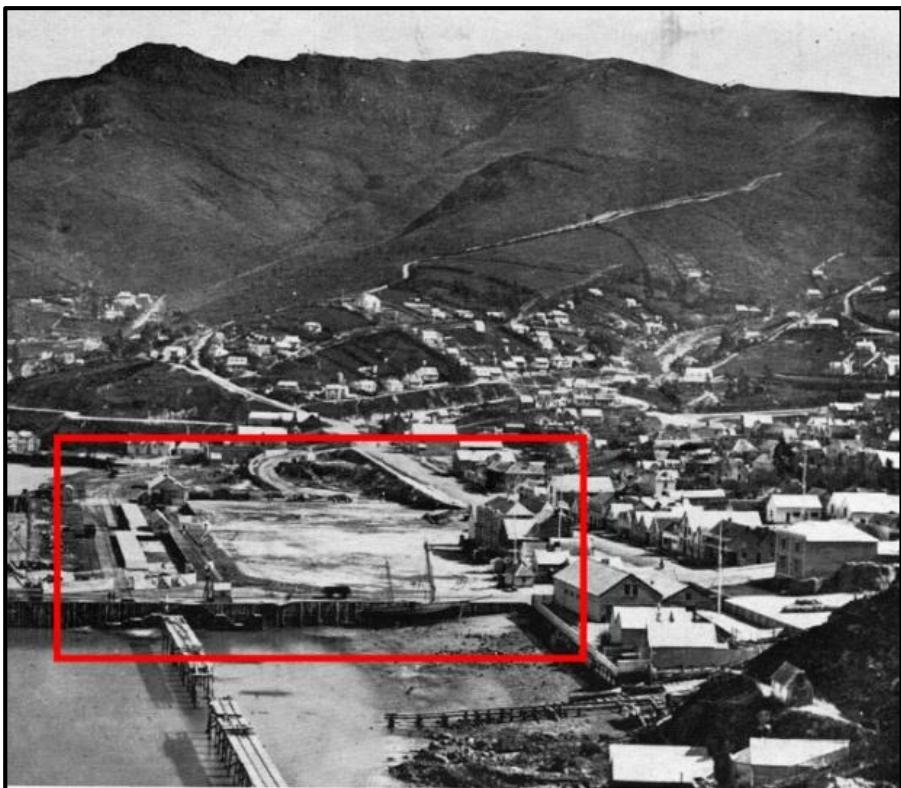


Figure 1. Lyttelton port in 1867, after the railway reclamation (M36/302) was formed (within the red box).
Image: Rice 2004:37.

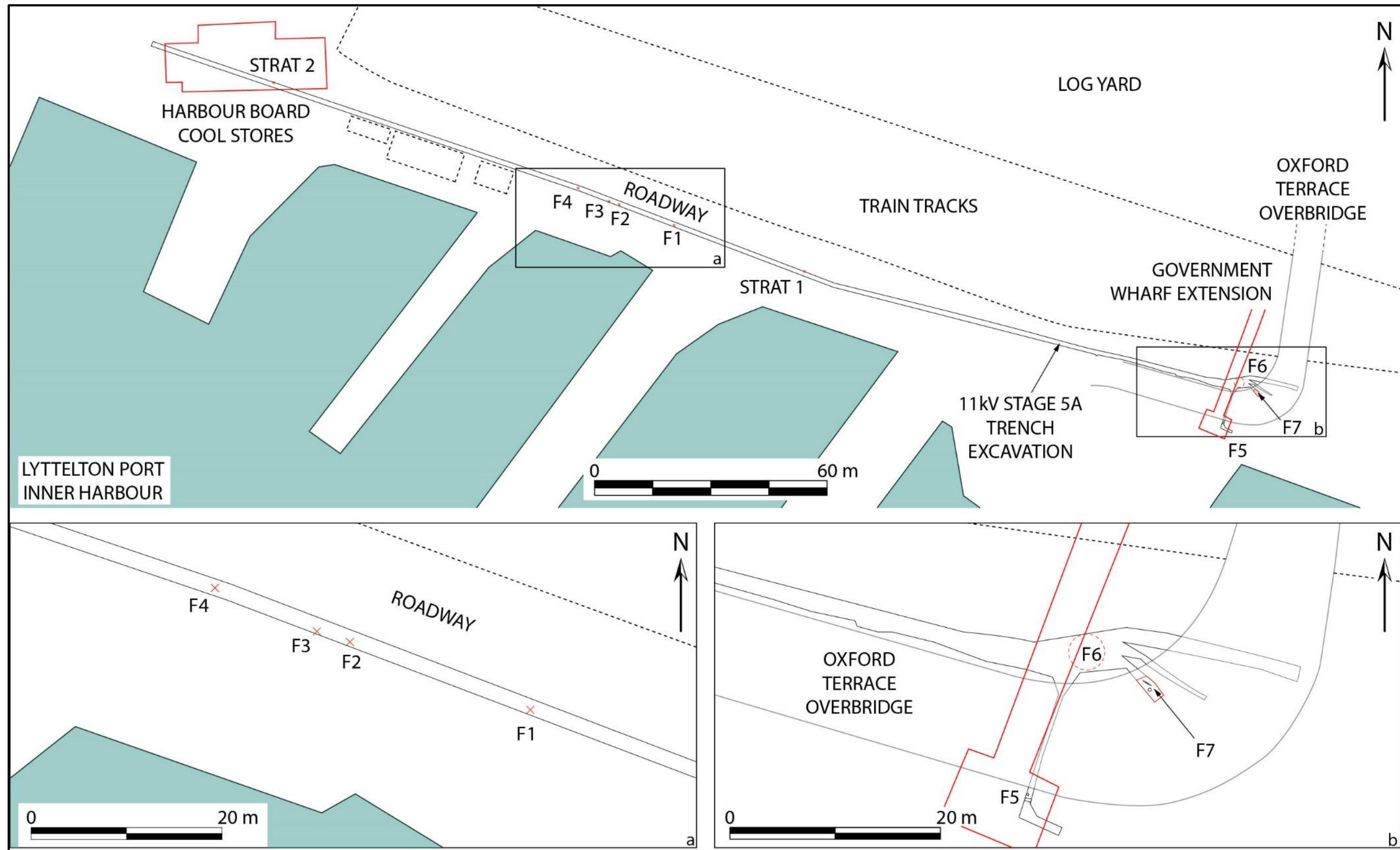


Figure 2. Site plan showing the extent of the earthworks and two archaeological sites that were intersected by the works. This site plan also shows all earthworks that were carried out as part of this project and all archaeological material that was found during the works.



Figure 3. The section of timber found in Feature 1. Left: detail showing the timber end on. Right: the timber seen side on.



Figure 4. Feature 2 as seen at the base of the excavation.



Figure 5. Feature 3. Left: Looking southwest. Right: Looking west.



Figure 6. The artefacts found in Feature 4.



Figure 7. The small trench excavated under the Oxford Street overbridge to the south. Looking north.



Figure 8. Feature 5 as seen from above the top of the trench.



Figure 9. Feature 6. Left: The stratigraphy observed above the metal ring found in Feature 6, looking southeast. Right: The metal ring exposed after it was exposed by the mechanical excavator, looking east.

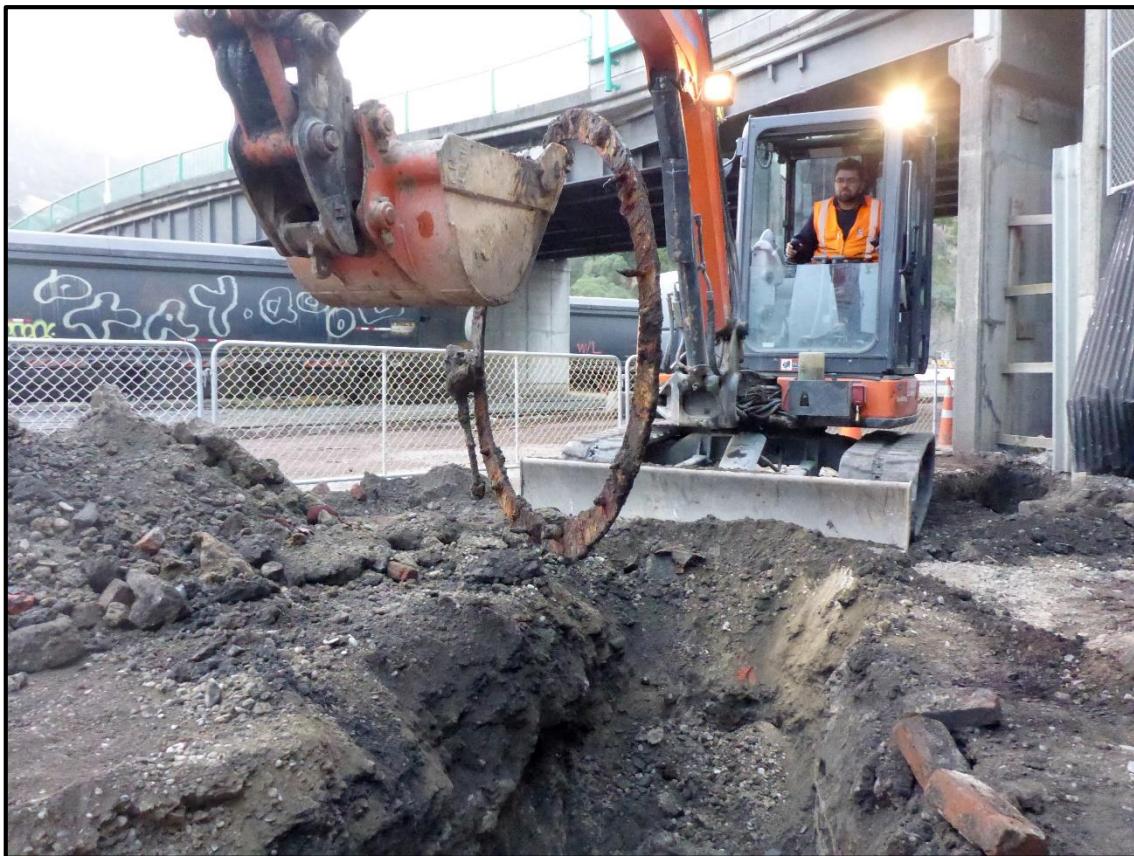


Figure 10. The metal ring during removal, looking northeast.



Figure 11. Left: A detail shot of the bolts used to fasten timber to this ring. Right: The artefact showing how timbers appear to have aligned towards the centre of the circle.

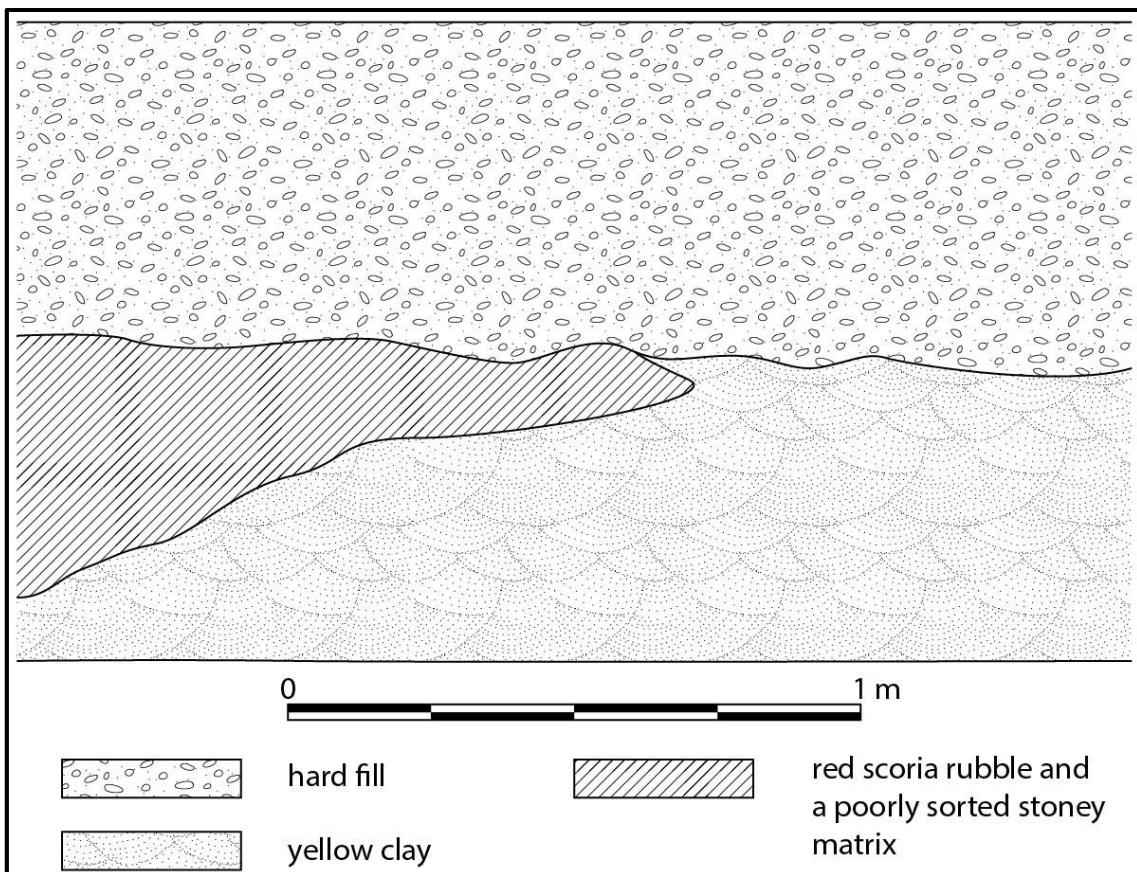


Figure 12. The stratigraphy as observed at 'Strat 1'.