

4. RESULTS OF EXCAVATION

4.1 Trench 1 (Figure 13, Plate 6)

Trench 1 was located towards the south-eastern part of the site. A stratigraphic matrix of contexts from this trench is shown in Figure 11. It was anticipated that parts of a long range of buildings shown on later 19th century maps might be encountered towards the eastern side of the trench (Figure 12).

"Natural" deposits were encountered c.0.30m BGL (below ground level) at c.7.15m AOD (above Ordnance Datum) at their highest point within Trench 1 and were examined to a depth of up to c.5.61m AOD. These consisted of yellow sandstone, context 1009, at the south-eastern side of the trench and soft brownish yellow mudstone, context 1008, to the west of this. At the extreme south-east of the trench the sandstone rose almost to the present ground surface (similar material was in fact noted at ground surface level in adjacent areas) and dipped gently downwards to the north-west. The mudstone also dipped down gently to the north-west. A deposit of reddish brown, stiff, slightly sandy clay that contained large numbers of sandstone boulders - some in excess of 1.0m across, context 1007, overlay 1008 in the north-western part of the trench. Although examined in some detail no finds or pockets or lenses of other materials were seen to be present within 1007. This absence of further materials goes some way to arguing the case for 1007 being a product of "natural" processes as opposed to an origin derived from human activity; for example deposited materials or re-deposited natural as a land reclamation deposit or as a result of quarry waste.

Context 1002 sealed these materials. Forming an extensive layer of mid - dark brown sandy silt that was seldom more than 0.20m deep, this deposit contained large quantities of brick rubble together with pieces of steel and fragments of concrete. This context appears to represent the levelling out of 19th- early 20th century building demolition type materials.

Three features cut through the sequence detailed above. Clipping obliquely the northern corner area of the trench was cut 1011. Having a flat base and vertical sides this feature was seen to contain an electric cable overlain by partially decayed protective wooden planking (a common practice pre-dating the use of ceramic tiles and later plastic coverings) and a mixed backfill, context 1010. On a south-west - north-east axis and crossing the central part of the trench was cut 1004. Of narrow width and with steep sides and a flattish base 1004 was seen to contain a plastic water pipe and a backfill comprised essentially of re-deposited sandstone and mudstone, context 1003. The final feature was context 1005, a solid block of concrete measuring in excess of 4m long x 2.3m wide and over 0.80m deep located in the south-west central part of the trench. The remnants of two threaded steel pins were affixed vertically to the upper surface of the block. The observation that 1005 butted flush to the surrounding natural materials indicated that the concrete of block 1005 had been cast directly into a cut, context 1006, into the natural materials and not against wooden shuttering.

The presence of wooden planking above the electric cable dates this service to the earlier part of the 20th century. The plastic water pipe was of very recent date and may relate to the use of the site as a temporary depot by Yorkshire Water during their programme of major works at the town in the late 1990's. The large concrete block is almost certainly of 20th century date. Its function however is less clear though a pylon or crane base are obvious suggestions.

A single deposit was seen to overlie features 1010/1011, 1004/1003 and 1005/1006. This was context 1001, a thin spread of angular limestone fragments generally >0.08m. This material is believed to have been deposited in the 1990's in order to provide an even surface for the site when used as a compound.

It will be noted that the anticipated 19th century building remains were not observed within the trench. However, in Section 5 "Observation of Standing Remains" it will be seen that remnants of a 19th century floor occur some 30m to the south of trench 1 at a height well over 1.5m above the top of Trench 1. It seems clear therefore that there has been some ground reduction in the extreme eastern part of the site.



Plate 6. Trench 1 looking east, showing concrete base 1005

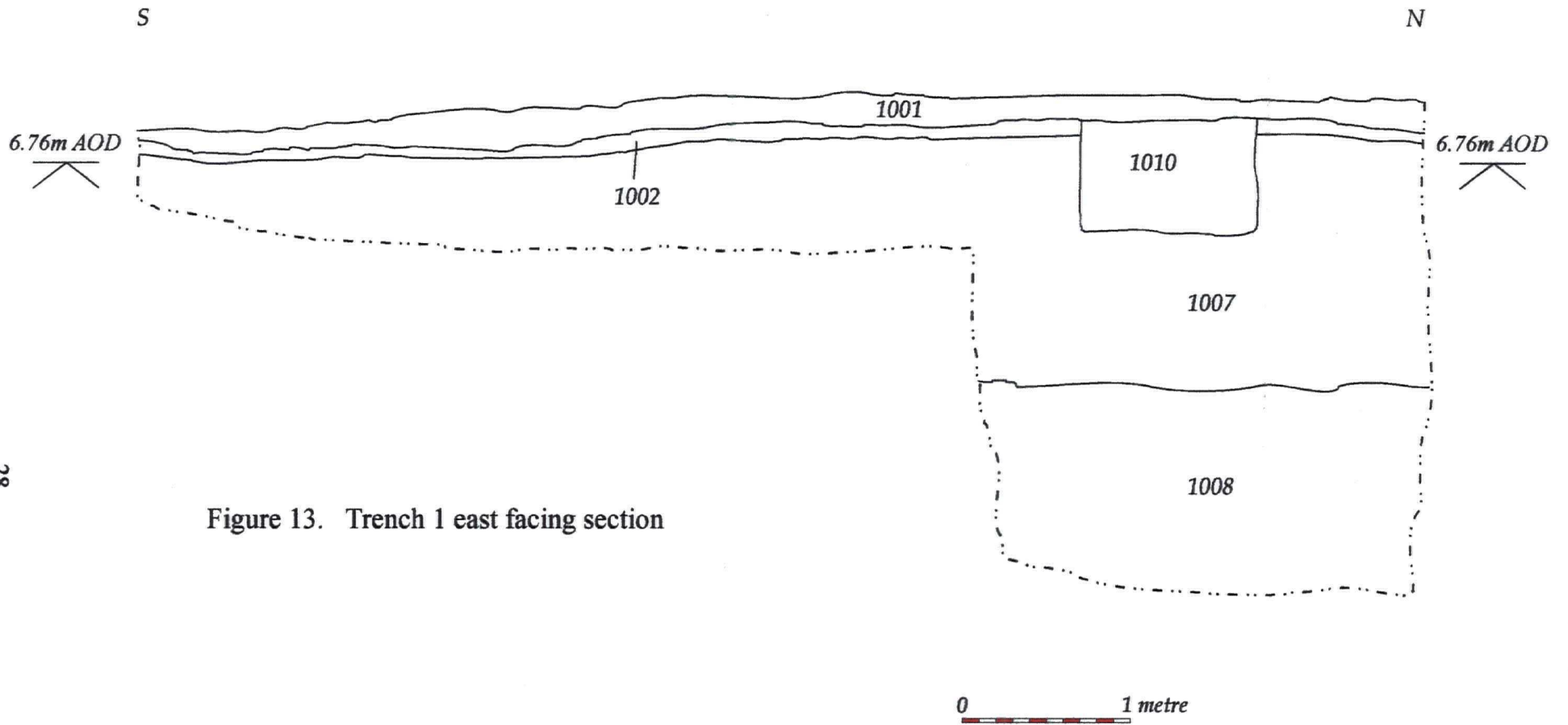


Figure 13. Trench 1 east facing section

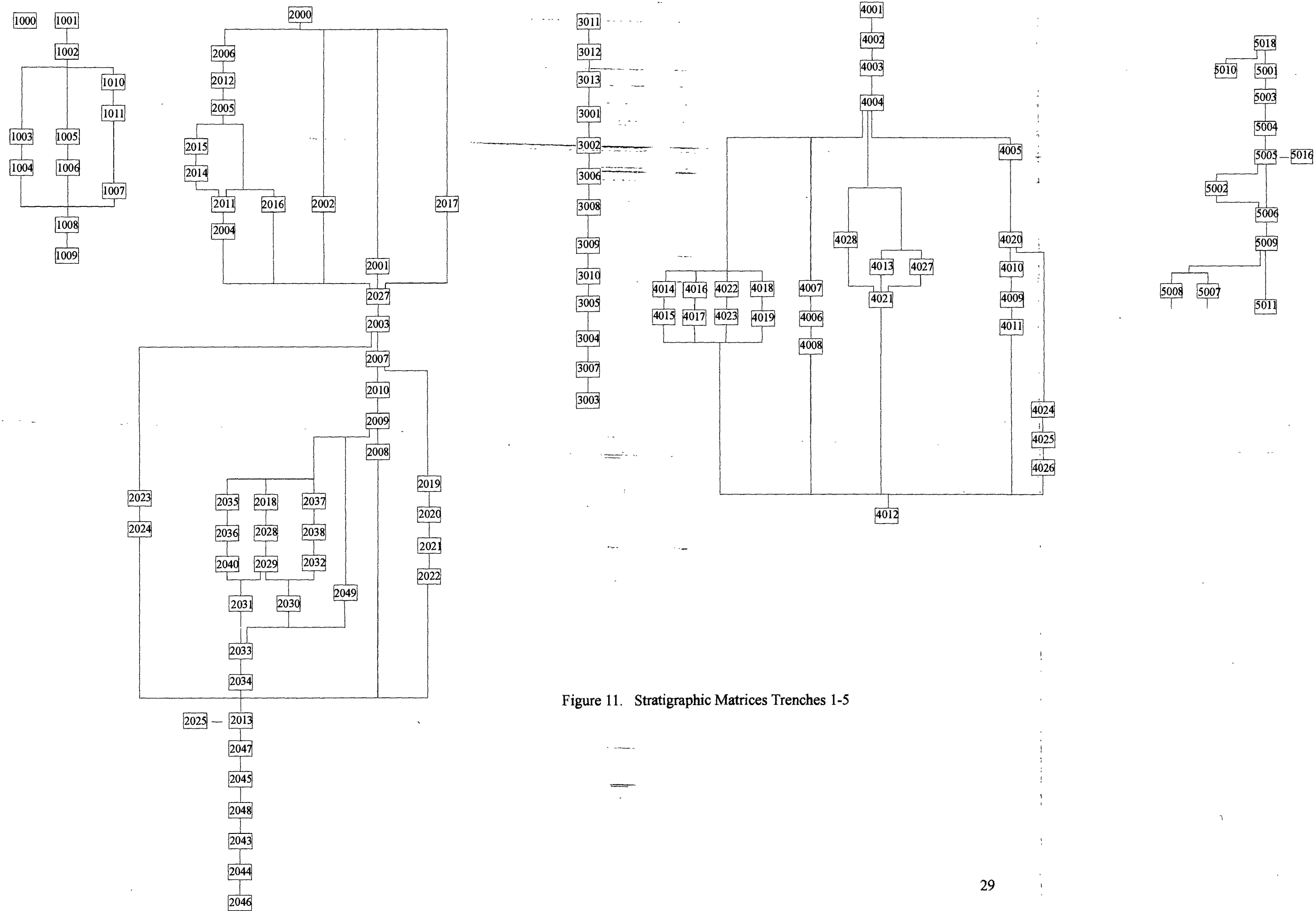
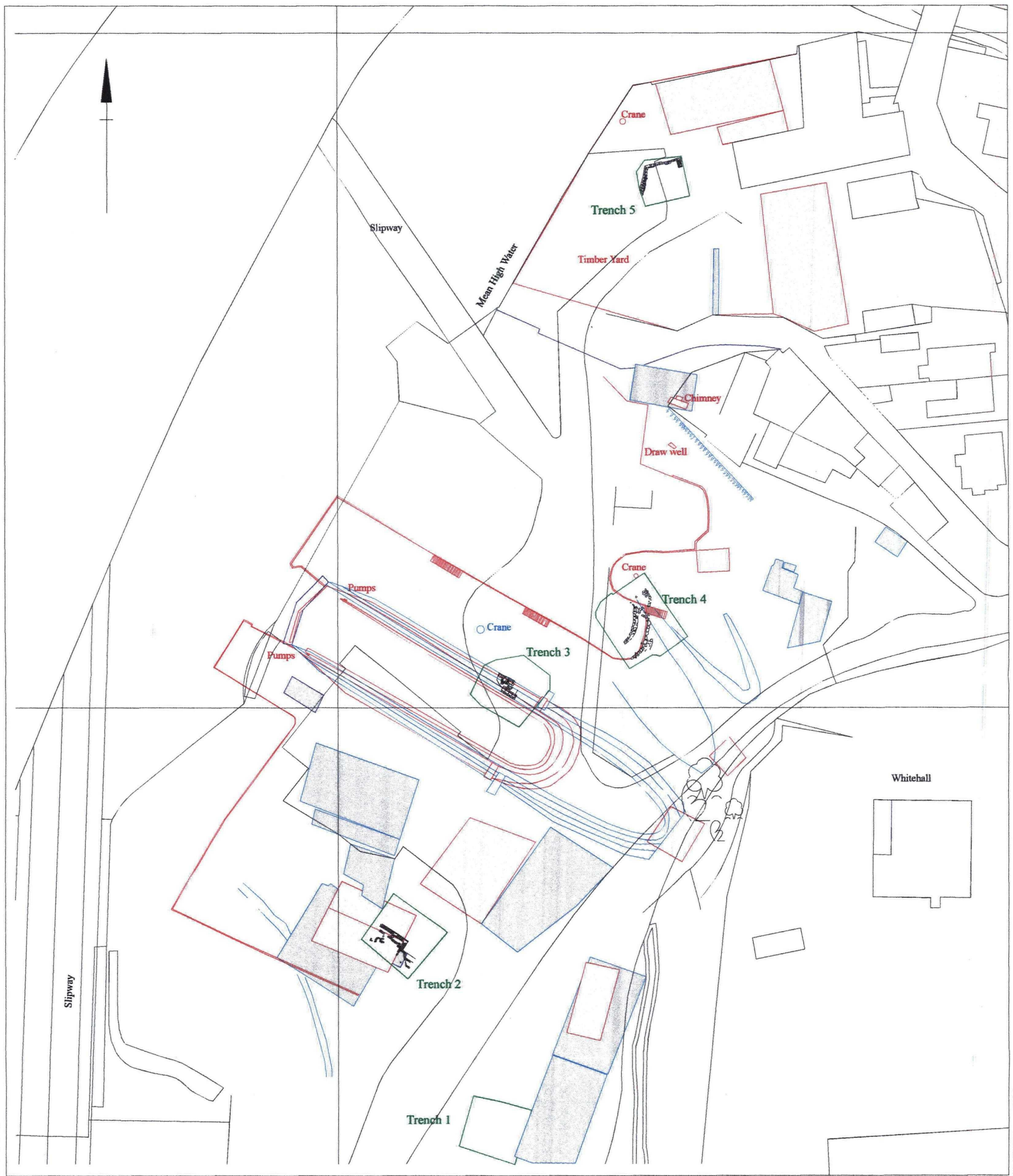


Figure 11. Stratigraphic Matrices Trenches 1-5



0m 50m

- Ordnance Survey 1st edition, 1852
- Ordnance Survey 2nd edition, 1893

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Figure 12. 19th century dockyard structures and (now demolished) buildings overlying modern map showing location of excavated structures.

4.2 Trench 2 (Figures 14, 15, Plate 7)

Trench 2 was located approximately 25m north-west of Trench 1. Inspection of 19th century maps indicated the likelihood of the trench encountering parts of a range of buildings. A building measuring c.12m x 13m appears on Woods 1828 map (Figure 4) and either the same building or one in the same location is represented on the 1893 2nd edition Ordnance Survey map (Figure 9). By this time a chimney had been constructed on its eastern side and the building was served by a tramway from the south and leading from it to the river side (see Figure 12).

What was probably natural material, context 2046, was reached in the basal part of the trench at a height of around 1.33m AOD (3.55m BGL). This was a very clean, light orange brown, firm, clay that contained occasional rounded pebbles. The cleanness and absence of finds or other materials suggests, but does not conclusively prove, that 2046 represents undisturbed natural.

A sequence of deposits, contexts 2044, 2043, 2048, 2045, 2047 and 2013 sealed 2046. The earliest of these deposits, 2044 was a light brown clay containing bands of gritty sand and occasional fragments of sandstone. This was overlain by context 2043, a mid red/brown, stiff clay, again containing fragments of sandstone. Context 2048, a dark brown/grey clay containing fragments of charcoal and pockets of tar together with occasional sandstone fragments sealed 2043. This was in turn overlain by 2045, an extensive, deep deposit of dark greenish brown, compact, sandy clay containing a number of sandstone and charcoal inclusions. A dark brown humic deposit containing fragments of wood and some tar, context 2047, sealed 2045 and was in turn succeeded by context 2013. This material was essentially a mid reddish brown, clayey silt containing occasional pieces of sandstone and small fragments of coal. A large lens of dark grey clayey silt, context 2025, containing occasional fragments of wood, was encapsulated within this larger deposit. This sequence of six deposits was both deep and extensive, their collective thickness being in the region of 2.50m. Most had clearly been deposited tipping from the east down towards the west, this being highlighted by the steep inclination displayed by their interfaces. Only the uppermost of these deposits, 2013 displayed a fairly level profile. These deposits can be confidently interpreted as land reclamation fills, dumped from the land westwards thereby reclaiming areas from the mud-flats and narrowing the course of the River Esk. Their origin through human action is indicated by their varied make-up and the presence of wood, coal, tar and silty lenses together with a number of post-medieval metal finds from context 2013. It is worthy of note that the bulk of the materials used in this land reclamation process was essentially re-deposited natural and that refuse, apart from that of 2047, was scarce. This situation may be due to the distance of the site from the core area of the town and the large amounts of infill material required.

Three features were cut into the relatively level upper surface of 2013. The major of these was a timber-lined pit, structure 2039. The south-western side of this had been completely removed by later foundations whilst the north-western side extended beyond the limits of excavation. Within the trench however, the lower 0.32m of the feature survived. A steep sided fairly flat based cut whose north-eastern and south-eastern sides were both straight and square to one another, context 2034, formed the lowest part of the pit. This cut was lined with an extremely compact mixture of sandy silt, small wood fragments and tar/bitumen, context 2033, generally around 0.03m deep. The structural components of the pit were all of timber and consisted of an edging piece at the north-eastern side, context 2049, and two internal dividing pieces laid at right angles to 2049, contexts 2030 and 2031. All these timbers were of rectangular section, measuring up to 0.10m wide by up to 0.25m tall and were so poorly preserved that it was not possible to

determine the manner of jointing of 2030 and 2031 to 2049. Additionally, two sub-rectangular post-holes, measuring up to 0.18m by 0.10m across and up to 0.64m deep, cuts 2036 and 2038, were located against the inner edge of the edging timber 2049. Each post-hole contained the decayed timber remains of a post, contexts 2035 and 2037. In the area between the two interior dividing timbers immediately above the basal lining of the pit an extremely hard, thin deposit of tar/bitumen and timber, context 2029, was seen. This was directly overlain by a series of thin, narrow, horizontally lain planks aligned north-west - south-east (long axis), each butting tightly against the other, context 2028. It is probable that this planking formed the working base of the pit between timbers 2030 and 2031. Similar bases may once have existed to either side within the pit. The uppermost parts of the feature were filled with contexts 2040=2026, 2018 and 2032, each occupying an area separated by timbers 2030 and 2031. Each was essentially a mixture of dark coloured sandy silt, small timber fragments and tar/bitumen. An environmental sample of 2018 (see section 7) indicates that some of the wood was of oak and that some pieces were waste chips derived from wood working. Some saw-dust may also have been present. A number of timber fragments retained from 2018 (see section 10) were worked fragments of pegs and boards. Two sherds of pottery recovered from this feature were of 18th/19th century date. Fragments of metal-work, including a large iron bolt are likely to be of similar date. Finds of metal and pottery from 2040=2026 were of a similar nature to those of 2018. Whether these fills relate to the use of the feature or merely to post-disuse infilling is uncertain but it is likely that structure 2039 functioned as some sort of processing tank, possibly for the treatment or soaking of ships timbers.

The remaining two features cutting into 2013 were cuts 2024 and 2022. Cut 2024 was located close to the western corner of the trench. This was sub-circular in shape with a diameter of 0.11m, had vertical sides, a pointed base and measured 0.24m deep. The fill of this cut, context 2023, was composed of burnt and partially decayed wood. Cut 2022 was located some 1.20m east of structure 2039. Being circular in plan with a diameter of 0.34m, this feature had moderately steep sides, a concave base and measured 0.23m deep. A lining or packing deposit composed of dark orange brown, silty clay, context 2021, was seen to adhere to the edges of cut 2022. This lining served to preserve the shape of a square void, context 2020, in which just a few fragments of decayed wood, context 2019, had survived. Both of these features represent the remnants of post-holes that originally supported timber uprights. In the case of 2022 the post had originally been of square section and packed around with clay.

A sequence of three deposits was revealed in the slightly lower northern area of the trench and overlay structure 2039. The earliest of these was context 2008, a spread of small sandstone fragments containing no other inclusions or finds, that occupied the northern corner of the trench and measured up to 0.40m deep. This was overlain by context 2009, an isolated spread of dark greyish brown, clayey silt containing large amounts of pan tile fragments and a much lesser quantity of small wood fragments. Iron and copper alloy nails together with fragments of clay pipe and what may be an iron chisel and iron tongs were recovered from this deposit as were a number of sherds of 18th/19th century pottery. Succeeding 2009, context 2010, was a fairly thin deposit of dark brownish grey, silty clay that contained a number of small limestone fragments, some of which had been burnt and almost reduced to lime and a single sherd of 18th/19th century stoneware. These deposits are clearly of mixed origin. 2008 would appear to be derived from crushed sandstone, 2009 from demolition type material and 2010 probably, partially at least, from industrial waste. Collectively these deposits are likely to be indicative of levelling dumps.

It is likely that deposits 2008, 2009 and 2010 were required to level up this part of the site for the laying of a timber surface, context 2007, substantial parts of which were observed in the central parts of the trench. The bulk of the north-eastern and south-eastern limits were fully revealed as was part of the south-western edge. The remaining edges and parts of its central area were truncated by later deposits. Constructed of flat lain timber planking soaked, or coated, in tar/bitumen and now partially decayed, the overwhelming majority of the planks were lain on a south-east - north-west axis and measured around 0.20m-0.25m wide and approximately 0.05m thick. A small number of planks were laid at 90 degrees to the majority, this presumably relating to their securing as did a handful of observed nails. Several fragments of this floor were retained (see section 10). The function of this planked surface is not known. It may be that it formed a working surface of some sort or possibly the base of a soaking tank the upper parts of which could have been removed prior to later structural activity.

Parts of a brick building complex cut through the earlier timber floor 2007, generally at a depth of around 1.0m BGL. The initial part of this complex, context 2003, was a construction cut that was seen to cut into underlying deposits and extend, at varying depths, below the entirety of the structural works. A mixture of brick and stone rubble set within concrete, context 2027, occupied the construction cut. This material, which was generally deeper under walls than under areas of flooring (especially under wall 2001), extended under all the structural remains. A small amount of dark silty clay backfill, context 2017, was present between 2027 and 2003. It appears that two phases of development are represented within the remains. The earliest of these was the north-easternmost wall 2001, which was seen to return to the south-west at 90 degrees. No flooring, internal or external could be directly related to 2001, such presumably being lost to later development. Subsequently a series of conjoined walls, contexts 2011, 2016 and 2005 were built immediately south-west of wall 2001, a rubble filled cavity, context 2002, being present between the earlier and later elements. Whereas 2011 and 2016 were built of red brick, the south-easternmost of these, wall 2005, was constructed of a pale coloured fire-brick. Brick floors were seen to be present within these walls. Floor 2004 lay adjacent to wall 2011, whilst butting up to the firebrick wall 2005 was a flooring of further firebricks, context 2014, bedded onto a thick layer of concrete, context 2015. Very small amounts of a cindery residue were present upon flooring 2014 but were too contaminated by slumping from the battered edge of the trench to be sampled. A further stage of building development may be indicated by the presence of a cast concrete slab, context 2006, that butted up to walling 2005 in the southern corner area of the trench. A further brick floor, context 2012, was laid between 2006 and wall 2005. It is probable that this building range, which extended beyond the limits of excavation to the south-east, south-west and north-west, relates primarily to an industrial process within the shipyard. Certainly the use of firebrick in the south-eastern part of the structural range, both for walling and flooring - the latter on a bedding of concrete, raises the probability of this area being used for some purpose involving high temperatures. This may have been part of the chimney shown on the 2nd edition Ordnance Survey map, 1893, at the eastern edge of a building at this location (see Fig. 12). This no doubt relates to one of the shipyard trades and crafts, these ranging from black-smithing to the fabrication of plates and rivets. The brickwork and materials employed in the building range appear to point towards a mid 19th century date.

A deep spread of material, principally demolition type debris, brick, concrete and sandstone rubble within a dark greyish brown silty sand matrix, context 2000, overlay the 19th century structural remains. It is likely that this deposit, which was up to 1.10m deep, relates in part or whole, to the demolition of that range. A layer of limestone chippings up to 0.20m deep, context

2050, formed the uppermost deposit within the trench and is likely to relate to the recent use of the site as a compound.

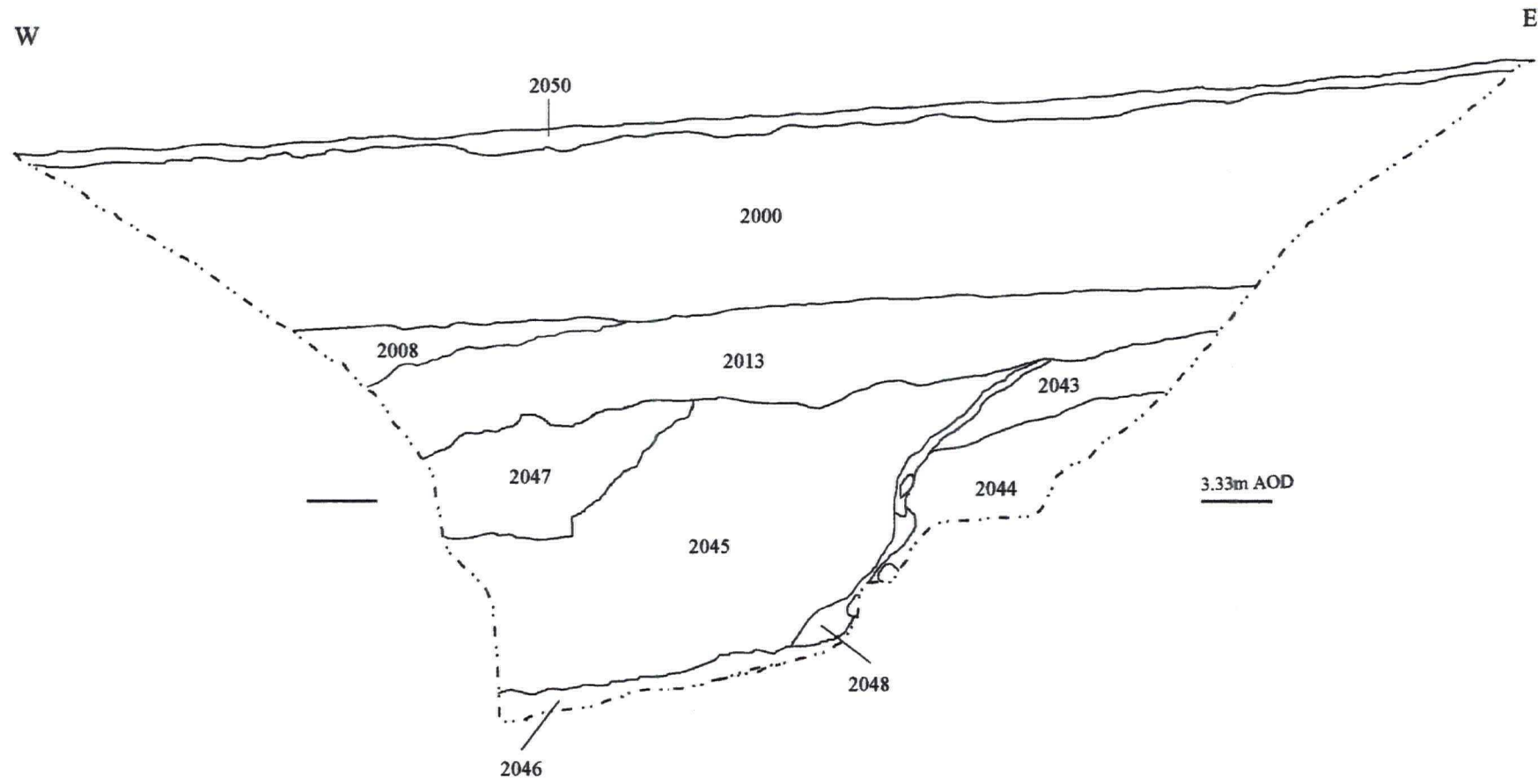


Figure 14. Trench 2 south-west facing section



Plate 7. Trench 2 looking south-east, showing 19th century structural remains, floor 2007 visible below scale, pre floor levelling deposits in left foreground of trench.

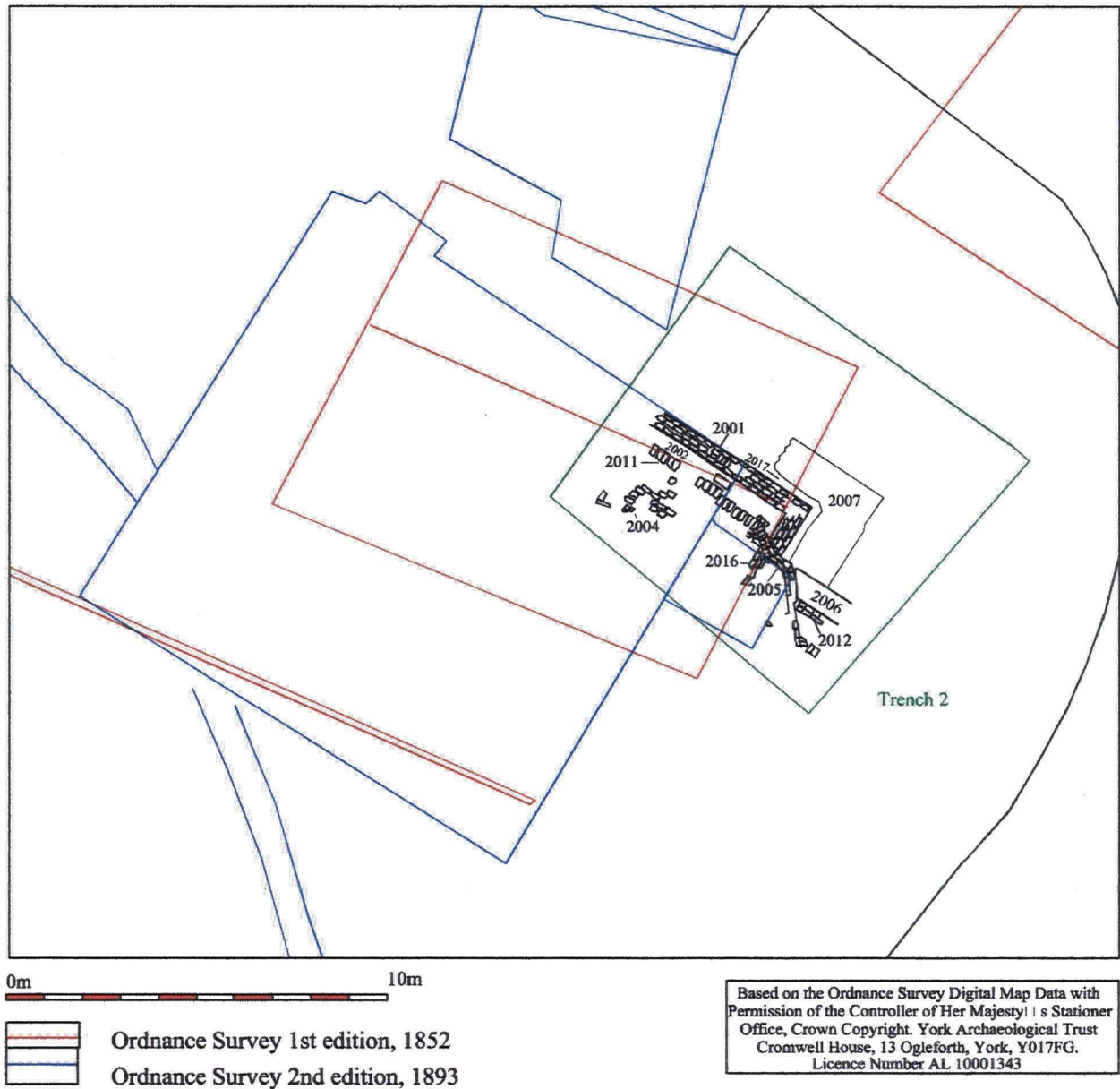


Figure 15. Excavated structures in Trench 2 in relation to features shown on historic maps