

CONWY QUAY AND LOWER GATE ST.

BRITISH GAS (WALES)
PIPELINE REPLACEMENT - 1993

ARCHAEOLOGICAL EVALUATION (GAT 1158)

Report No. 74

Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

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ARCHAEOLOGICAL EVALUATION (GAT 1158)

prepared for British Gas (Wales) Ltd.

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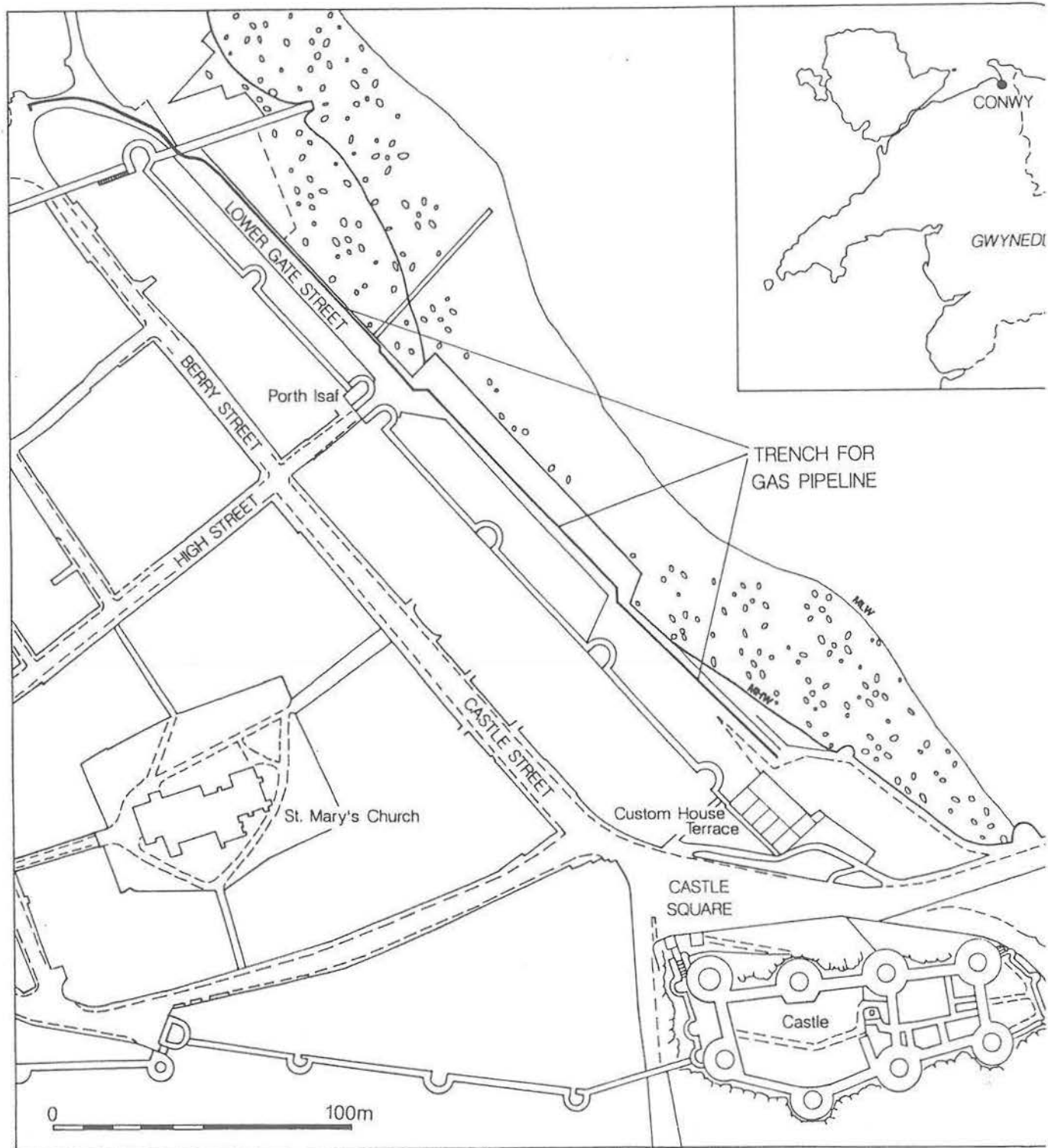


Fig. 1 Location and pipe trench route.

CONWY QUAY AND LOWER GATE STREET BRITISH GAS WALES PIPELINE REPLACEMENT - 1993

Recent investigations by the Gwynedd Archaeological Trust in Lower Gate Street, Conwy have established the nature and position of a former quayside dating to some time before 1776.

1. INTRODUCTION

British Gas (Wales) Ltd. are re-routing and replacing a section of gas main pipe from a point south east of Custom House Terrace following the present quay and Lower Gate Street to its junction with Town Ditch Road and Berry Street. The work involves considerable ground disturbance during excavation of a trench 0.5m wide and approximately 1.0m deep along the length of the proposed route.

Following the preparation of an archaeological project brief by the Gwynedd Sites and Monuments Record identifying the archaeological implications of the work, Gwynedd Archaeological Trust (Contracts) Ltd was asked by British Gas to produce a project design to satisfy the required archaeological response as outlined in the brief. Subsequently the Trust carried out a Grade 1 Watching Brief during the work in November and December 1993.

The contractors work programme was to involve two separate phases.

Phase 1, the excavation by machine of the pipe trench from Porth Isaf northwards to the arch in the medieval town wall, was carried out as specified.

Phase 2 was to involve the excavation of a tunnel, with mole boring equipment, 1m below the present ground level through the archway, with a return to open trench excavation for the laying of the pipe to the end of Lower Gate Street. Due to the many services already occupying the limited space through the archway, phase 2 was adapted to the excavation by hand of a trench at a higher level through the archway and then continuing with a machine dug trench up to the end of Lower Gate Street at the Town Ditch Road/Berry Street junction.

In addition, the pipe from Porth Isaf south to the Customs House Terrace was to be housed in a joint trench beside a Welsh Water rising main.

2. PROJECT BRIEF

The project brief stated that ; 'Considering the proximity of important surviving archaeological remains and structures (the town walls and castle), and the known use of this area as a quay in the medieval period, it is quite possible that this disturbance will uncover further archaeological features or deposits of importance. A watching brief should be carried out to observe the open trench and boring launch and reception pits to ensure that all archaeology which is affected by the development has been adequately recorded.'

(Please see appendix for full specification.)

3. METHOD AND TECHNIQUES

Test Pits

Prior to the excavation of the main trench, the contractors hand dug a series of small trial holes to establish the presence and nature of existing services. The trial holes were

inspected by GAT and recorded with black and white and colour photography and written descriptions where appropriate.

The Trench

The excavation by machine and by hand of the gas trench from Porth Isaf to the archway in the town curtain wall and beyond to the Town Ditch Road/Berry Street junction was observed by GAT. Excavation proceeded in large sections, allowing adequate time for archaeological recording of the open trench, before the pipe was laid. The nature of the underlying stratigraphy was recorded with black and white and colour photography, written description, sketch plans and scaled drawing where appropriate. The extent of the excavations and the location of specific features were recorded with Total Station survey equipment.

The excavation by machine of the trench from Porth Isaf to Customs House Terrace followed closely the line of the new Welsh Water rising main. The nature of the revealed stratigraphy was recorded with written description, black and white and colour photography, sketch plans and scaled field drawing where appropriate.

The extent of the excavations and the location of specific features were surveyed with off-set plans onto 1:200 map copies.

4. HISTORICAL BACKGROUND

A Cistercian abbey was founded on the site of Conwy c.1192. At the time of Edward I's establishment of the castle and town in 1283, the abbey was relocated to Maenan. The town, enclosed by substantial stone walls, saw the development of 122 burgage plots by the end of the 13th century. The town was subject to limited development during the later middle ages and early post-medieval periods. Evidence for a medieval quay serving the castle end of the town waterfront was discovered in 1939 by W J Hemp. These investigations took place to the east and north of the castle's eastern terrace in advance of landscaping work for the building of the new Conwy Bridge (Arch.Camb.Vol XCVI, part 2). The earliest available reference to a quay serving the town proper is an early 17th century print of the town and castle (ibid. p. 165) which shows a quayside located in a similar orientation to the line of the present Lower Gate Street between Porth Isaf and the archway in the town curtain wall. 18th century map and print evidence continues to show the 'quay' or 'strand' at this location (see Fig. 4).

5. RESULTS

Test Pits

A series of small trial pits 1.3m x 0.40m was excavated by hand along the route of the trench prior to the main excavation. Only one test pit revealed deposits of an archaeological significance, the remaining pits exposing only services and modern backfill associated with them.

A test pit was located c. 5.0m to the southwest of Parisella's Kiosk (Fig. 2) on the east side of Lower Gate Street and orientated east-west. The pit was hand dug to a maximum depth of 0.85m and revealed firmly mortared large sub-angular stones surviving as a badly disturbed feature 0.30m below the road surface. The maximum height of the feature as observed was 0.55m. The stone work had been cut on either side by previous pipe and cable trenches.

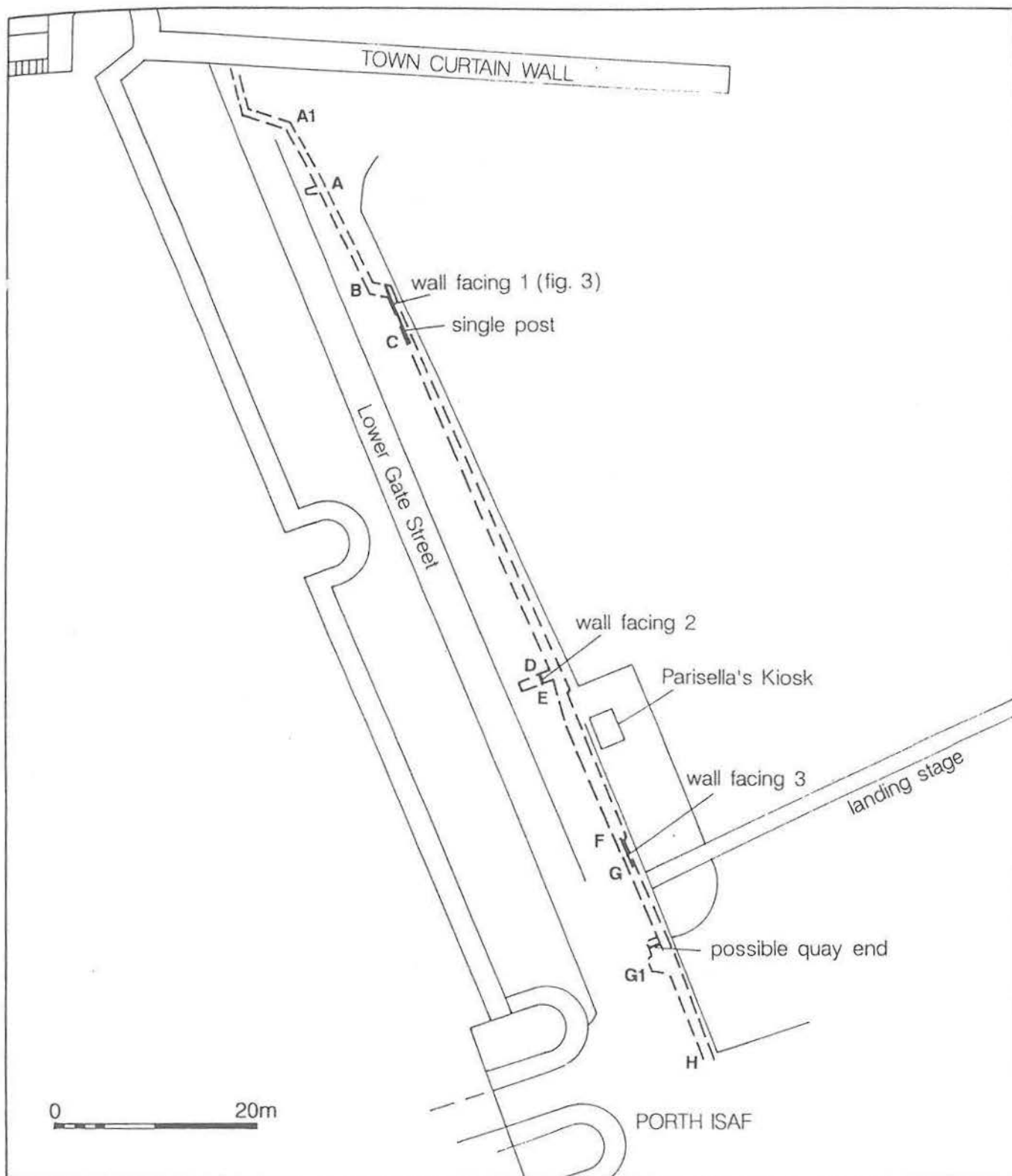


Fig. 2 Porth Isaf to Town Curtain Wall.

The Trench

Excavation of this trench between Porth Isaf and the Lower Gate Street archway revealed the existence of a substantial stone built structure running almost the entire length of the trench here (see Fig. 2). Wall facing was exposed in three locations where the line of the trench followed the line of the feature for short stretches.

A to B

Excavation proceeded from point A to point B along the line of the former gas main and a disused water main. The trench was excavated 0.70m-1.0m wide and to a maximum depth of 1.3m. In this section the present road make up of tarmac (0.10m) overlay 0.20m of pink hardcore. Below this to the maximum depth of the trench was a consistent deposit of medium to large sub-angular stones carrying traces of firm course grained mortar. The stones were mixed with approximately 5% of dark brown silty clay redeposited with the stonework during the backfilling of the original pipework. What appeared to be in-situ bonded stonework was observed at the base of the trench in some places.

B to C

At point B the trench made a sharp turn to the east for 2m. During excavation of this 2m stretch the trench cut through undisturbed stonework, 1.0m in height, overlaid by 0.30m of pink hardcore and tarmac. The excavation then turned to the south again and continued on the line of the Lower Gate Street curb to point D. From point B the trench exposed an east wall facing for a length of 5m to point C. (Wall facing 1, see Fig. 2 & 3).

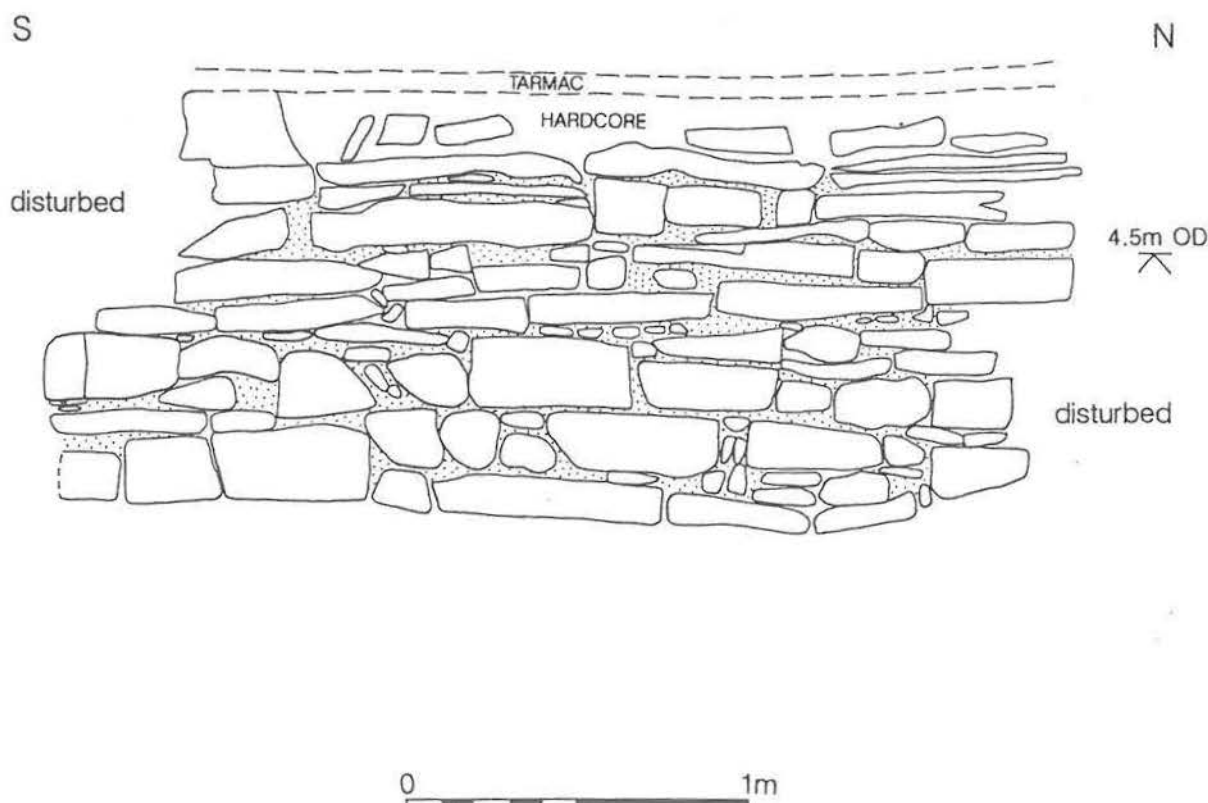


Fig. 3 Wall facing 1.

A 2.4m length of wall survived here with little disturbance from the machine work. At this point the wall construction lay directly below the road makeup. The uppermost course of masonry was slightly disturbed and of an uneven nature suggesting that the original wall top had been truncated by the construction of the present and possibly earlier road surfaces. The remaining construction was of random coursed irregularly sized stone blocks (0.60 - 0.25m), flat faced with slightly rounded corners occasionally packed with thin vertically placed inserts. The construction was bonded with a firm course gritted lime mortar. This style overlay larger blocks up to 0.70m in length but essentially of the same building technique. The base of the wall was not exposed by the trench.

As observed at point B (where the trench cuts a section through the feature), the wall core behind the facing was seen to be of a very strong construction of mortared, random uncoursed, stonework with no loose core material. Observations in the south facing section of the trench (afforded by the change in direction at point B) revealed that the wall structure continued towards the north.

A single timber post was located 0.30m to the south of the wall facing (see Fig. 2). Protruding from the base of the trench by 0.10m, the timber had a rounded top of 0.10m diameter. No further timbers were identified.

Deposits noted from the west facing section of the trench were of recent origin. Mixed horizons of building waste, interspersed with redeposited silty clays and clays containing modern inclusions of slate tile and 19th century pottery were butting the wall feature representing made ground forming the present extended foreshore.

C to D

From point C the trench continued to be excavated through the core material of the wall feature, the projected line of the wall facing lying on the eastern side of the excavation (see Fig. 2).

D to E

Between points D and E, a short trench 3.4m in length and 0.60m wide and 0.60m deep was excavated at right angles from the main trench across Lower Gate Street towards the west, to establish the location of services. A stretch of west facing wall (wall facing 2, see Fig. 2) was exposed crossing this trench 2m from the western edge of the main pipe trench.

This comprised five courses of stonework of a similar construction to wall facing 1 exposed to a height of 0.40m underlying the road makeup.

E to F

From points E to F the main trench continued to be excavated through the stonework of the wall feature; the line of the trench appearing at this point to be wholly within the core of the wall.

F to G

Between points F and G a short stretch of west facing wall (wall facing 3, Fig. 2) was observed. Measuring 1.8m in length, 0.60m in height, five courses of randomly coursed mortared stonework survived, sealed by 0.40m of mixed rubble overlaid by the tarmac road surface of 0.05m depth. The nature of the wall facing was not of the high quality observed at 1 and 2, but made up of less well faced stone alternating in the construction with thin fill lines of small stones. The construction was bonded with a course gritted lime mortar. The full height of the wall was not exposed by the trench.

G to H

At point G1 between G and H (see Fig. 2) deposits excavated within the trench changed from mortared stone wall core to deposits of recent origin representing the numerous backfills of the many services occupying the junction of Lower Gate Street and High Street at Porth Isaf. Although disturbed by the pipe and cable installations, the widening of the trench at this point provided the opportunity to view an extended section east/west across Lower Gate Street. The strongly mortared stonework appeared to come to an abrupt end at this point which could represent the southern end of the structure defined by wall faces 1, 2, and 3, although neither a 'finished' corner nor a southern wall face could be identified.

The rear facing of the modern quay wall was exposed for a length of 6m in the west facing section of the pipe trench between points G1 and H. Large irregularly sized stone blocks (max. size 500mm) formed a face of regular courses the entire depth of the trench at this location.

A to Town Ditch Road/Berry Street Junction (Fig. 1 & 2)

From point A to A1 (Fig. 2), deposits recorded in the trench were of the wall core as identified between C and D. The trench was excavated by hand and machine to a depth of 0.70m due to the presence of live services entering the trench from the south. Beyond point A1 no further stonework was encountered comprising instead an area of modern deposits resulting from the many services converging on the entrance to the arch in the town curtain wall. It would seem more likely that the line of the trench diverged from that of the wall feature at this point rather than that this wall terminated before reaching the town wall (although this was not observed directly).

Below the arch the depth of the trench was maintained at 0.70m and was reduced to a width of 0.60m due to service crowding within the narrow passage. No features or deposits of archaeological origin were present.

The remaining length of pipe trench connecting point A1 to the Town Ditch Road/Berry Street junction (Fig. 1) along the northern end of Lower Gate Street was excavated by machine to a depth of 1.0m and a width of 0.70m. Observations revealed a consistent layer of modern makeup 0.50m deep within the trench associated with the backfill of several services running within and parallel to the trench. A thin layer (0.20m) of light grey clay containing occasional small angular stones underlay the modern disturbance at irregular intervals within the trench. The lowest visible layer within the trench cut was a gravelly light brown clay mixed with lenses of clean light brown clay and light grey gravelly clay. The deposits appear to represent a series of mixed redeposited clays of unknown origin. No features or finds of significance were observed within the trench.

Porth Isaf to Customs House Terrace (Fig.1)

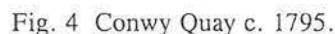
Deposits excavated during preparation for the laying of the Welsh water rising main and the gas main between Porth Isaf and Customs House Terrace were found to be predominantly of recent contexts forming made ground behind the 19th century wharf structures.

The trench ran south from a point opposite Porth Isaf to the north side of the Quay car park following the edge of the Quay road at its interface with the wharf platform. 0.20m of modern road make-up was seen to overly a mixed layer of redeposited mudstone shale and yellowish brown clay which continued to the lowest extent of the trench. No features or deposits of archaeological significance were present in this section.

From the north side of the quay car park the trench continued along the edge of the wharf to Customs House Terrace. Deposits were typically 1.5m of grey silty clay,

6. INTERPRETATION

Direct evidence for the date of construction of the quay was not forthcoming during the present investigation. However, based on documentary map evidence and the lack of associated medieval contexts or finds a post-medieval date is suggested for its construction; possibly during the early part of the 18th century. The quay would appear to be in roughly the same location as the 'strand' as illustrated on the Holland Estate map of 1776. A sketch map of Conwy appearing in Pennants Tour of Wales Vol II, also has the 'quay' situated at this point in 1795 (Fig.4).



The final decision to build up the waterfront to its present day profile as a shallow gradient foreshore may have been the result of the quayside gradually becoming unusable. This may have been due to the increased deposition of silts and river gravels brought about by the construction of the Conway Road causeway and bridges in the 19th century. Local knowledge seems to support this possibility, as the construction of the latest road bridge in this century also had the effect of significantly reducing the deep water moorings opposite the present quayside.

The excavations did not reveal the full height of the feature although its length can be suggested as close to 170 metres considering the points at which mortared stonework were located within the trench. Only one short length of east facing stonework was revealed (wall facing 1), while the two lengths of west facing stonework (wall facings 2 & 3) may represent the rear of the quay structure.

No secondary quayside features were identified during the work excepting the single timber post located between point B and C. However, the proposed laying of a large storage/pumping pipe by Welsh Water in early 1994 along the foreshore immediately to the east of the former quayside may produce further evidence of associated features or more details of the quay itself which will allow a fuller understanding of its origin, function and history.

7. CONCLUSION

The level of disturbance to the former quayside has been fairly severe during the present work. Much of the actual quay wall facing will have been destroyed between points C and D where the excavation appears to have closely followed the line of the front of the quay. Disturbance has occurred to other sections of the quay at other locations and at other times. The survival of associated features such as mooring rings, steps or timber jetties is possible however, and it is recommended that in the event of further disturbance within the immediate vicinity, the work should be accompanied by archaeological monitoring to ensure an adequate record can be made of any surviving features.

Features or deposits of archaeological significance were absent from the remaining parts of the trench to the north of the archway and to the south of Porth Isaf. It would appear that the majority of the trench in these areas was excavated within ground already disturbed by earlier services and therefore has not affected any significant archaeological deposits.

ACKNOWLEDGEMENTS

Gwynedd Archaeological Trust Ltd is grateful to British Gas (Wales) for supporting this project and also to site contractors O C Sommers, for their cooperation and patience while recording took place.

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APPENDIX

SPECIFICATION FOR ARCHAEOLOGICAL INVESTIGATIONS & RECORDING:

CONWY QUAY AND LOWER GATE ST - GAS PIPELINE REPLACEMENT

Prepared for British Gas - 6 November 1993

1. PROJECT BACKGROUND

British Gas Plc are planning to lay mains along the Quay in Conwy. The line of the works will extend from the NW end of Lower Gate Street running under the medieval town wall, along the Quay to just beyond the SE end of the Custom House Terrace.

It had been envisaged that much of this pipe would be laid in the existing gas main trench but, because of engineering problems, this has not been possible. It is understood that the section of pipeline from the Terrace to opposite Porth Isaf will share the same trench as the planned Welsh Water rising main. From Porth Isaf through to the NW end of Lower Gate Street the gas main will be laid in its own new trench.

The works programme will be carried out in two phases:

PHASE 1

From November 1 1993 the trench will be excavated for the new gas main from Porth Isaf to the NW end of Lower Gate Street. The trench is estimated to be 0.5m wide and at most 1.0m deep.

PHASE 2

Following on from this, Phase 2 involves a moiling device which will excavate a tunnel to take the pipe under the medieval arch at the NW end of the Quay. A 'launching' pit measuring 3m long by 1m wide by 1m deep will be excavated on NW side of the arch. The exit point for the pipe on the Quay side will require a similar sized trench though the exact location of this will depend upon any obstacles encountered during the boring.

The Gwynedd Sites and Monuments Record has identified the archaeological implications of the project proposal and prepared a project brief requiring a programme of work in mitigation. This project design has been produced by the Gwynedd Archaeological Trust (Contracts Section) to satisfy the archaeological brief (see below).

2. KNOWN ARCHAEOLOGY

A stone walled hillfort caps Conwy Mountain one mile to the west. A Cistercian abbey was founded in Conwy c. 1192 on what was presumably royal land. A timber hall, later known as Llywelyn's Hall, stood to the west of the abbey church. In 1283 a stone castle was constructed on a rock outcrop overlooking the estuary. A planted borough was appended enclosed by stone walls and containing 122 burgage plots. The abbey was displaced to Maenan but the abbey church was retained to serve the new community. The town saw little development during the later middle ages with many open areas surviving as gardens into the late 18th and early 19th centuries.

The area of the modern quay is delineated in the north by a medieval wall which projects down the foreshore from Lower Gate Street. It is known that this enclosed area also served as a quay in medieval times, providing a protected landing site for supplying the medieval town and castle. There may have been various wharves and jetties projecting from the medieval quay to serve the transport ships.

Trial pit excavations for geological investigations have indicated a considerable buildup of dumped and accumulated material dating from at least the 18th century in the area of the proposed development. However, the depth of these intrusions was limited and no natural or river terrace deposits were identified. Therefore it is possible that this later dumping has sealed earlier archaeology potentially including earlier versions of the present quay. One larger test pit excavated adjacent to the medieval wall projecting into the estuary revealed an organic layer located some 1.5m below the present ground surface which contained shaped timbers and bone. It is possible that this represents the remains of some collapsed structure, although unfortunately, no dating material was recovered. This organic layer sealed a layer of thick river clays which could preserve even earlier archaeology or palaeo-environmental remains.

3. PROJECT BRIEF

The planned development will involve considerable disturbance of the ground from the NW end of Lower Gate Street right across the quay towards Conwy Road. Considering the proximity of important surviving archaeological remains and structures (the town walls and castle), and the known use of this area as a quay in the medieval period, it is quite possible that this disturbance will uncover further archaeological features or deposits of importance. A watching brief should be carried out to observe the open trench and boring launch and reception pits to ensure that all archaeology which is affected by the development has been adequately recorded.

4. METHODS AND TECHNIQUES

As recommended by the Gwynedd Sites and Monuments Record acting as the archaeological curator, this specification is designed to comprise a fieldwork stage followed by the production of a report laying out the results of the monitoring and recording.

FIELDWORK

The machine/manual excavation of all trenches and test pits during the development will be monitored by Gwynedd Archaeological Trust staff. All archaeology which may be disturbed or revealed by the planned development will be recorded, as well as the general makeup or geological deposits of the development zone where appropriate.

All recording will involve written descriptions on standard Gwynedd Archaeological Trust context forms, plans at 1:20 scale, sections at 1:10 scale, scaled black and white photographs and colour slides at 35mm format.

Any finds will be sampled and located three dimensionally if significant and environmental samples will be taken where appropriate.

A) Preliminary Test Pits

At least three test pits have been excavated ahead of the main excavation for the pipe trench these have already been monitored.

Staff: two

Grade: project supervisor, project assistant

Time (completed): one man-day

B) PHASE 1 - pipe trench from Porth Isaf to the NW end of Lower Gate Street

Staff: two

Grade: project supervisor, project assistant

Time (estimate): 8 man-days

C) PHASE 2 - mole boring pits

Staff: two

Grade: project supervisor, project assistant

Time (estimate): 2 man-days

D) Pipeline from Porth Isaf to Customs House Terrace

Staff: two

Grade: project supervisor, project assistant

Time (estimated): 6 man-days

NB: It is understood that this pipe will be housed in a Welsh Water trench, the cost of the archaeological monitoring will therefore be shared between British Gas Wales Plc and Welsh Water.

5. FINAL REPORT

Following the completion of the Fieldwork Stage, a report will be produced for submission to British Gas Wales Plc and The Gwynedd County Sites and Monuments Record. This will detail the results of the watching briefs and any other recording and investigations which may result. It will comprise:

- a) a copy of the agreed Project Design,
- b) a plan drawing showing the site and its location in relation to published boundaries and OS datum.
- c) plans at an appropriate scale showing trench layout (as dug) and features located as well as, where possible, predicted archaeology
- d) other illustrations as appropriate
- e) a description of the archaeology revealed including its extent and character, a provisional interpretation and date, and an assessment of its condition and importance (quality and state of preservation)
- f) a full bibliography of sources consulted

The report will be compiled using Wordstar7 software. The client will be supplied with one hard copy of the report with further copies at cost (a copy of the report can also be supplied on disc if required). A copy will also be lodged with the Gwynedd County Sites and Monuments Record on the understanding that this will become a public document after an appropriate period of time (generally not exceeding six months).

Staff: two

Grade: Project Officer, Illustrator

Time: 4 man-days

6. DEPOSITION OF ARCHIVES AND FINDS

A full archive including plans, photographs, written material and any other material resulting from the project will be prepared. All plans, photographs and descriptions will be labelled, and cross-referenced, and lodged in an appropriate place (to be decided in consultation with the Sites and Monuments Record) within six months of the completion of the project.

Staff: one
Grade: Project Supervisor
Time: 1 man-day

7. PERSONNEL

The work would be supervised by the Trust's Project Manager (Contracts), Mr Roland Flook. The work would be undertaken by one of the Trust's Archaeological Project Supervisors and carried out by fully trained Project Assistants.

8. MONITORING

The Gwynedd County Sites and Monuments Record are responsible for monitoring progress and standards throughout the project. Provision has been made to accommodate field visits by the SMR for monitoring during the watching briefs and once the fieldwork is complete to discuss the results.

9. TIMING

The Trust would be able to make personnel available to commence this work from November 1 1993 should the specifications and costings be judged acceptable by the client. The scheduling and duration of the stages would, of course, be dependent upon the development programme as well as, to some extent, upon the weather.