

**Commercial-in-Confidence**

**Report No. 6804.02  
11 September 1994**

**REPORT ON AN ARCHAEOLOGICAL EVALUATION AT  
FLINT CASTLE, MOAT EMBANKMENT**

**For Acer Wallace Evans**

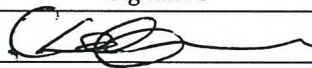
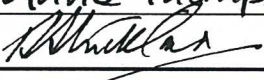
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FLINT CASTLE, MOAT EMBANKMENT

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**REPORT ON AN ARCHAEOLOGICAL EVALUATION AT  
FLINT CASTLE, MOAT EMBANKMENT**

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## 1. NON-TECHNICAL SUMMARY

- 1.1 Acer Wallace Evans, on behalf of Delyn Borough Council, have submitted an application for Scheduled Monument Consent (dated 18 July 1994) in order to construct a pipeline along Flint Castle moat embankment.
- 1.2 In view of the possibility of disturbing archaeologically significant deposits CADW recommended that an archaeological investigation of the deposits that make up the embankment should be undertaken ahead of pipe installation.
- 1.3 The archaeological investigation comprised the excavation of a single 7m x 2m trench located at the eastern end of Flint Castle embankment. The trench was excavated to a depth of c.5m below the present ground surface, the maximum depth of the proposed pipeline works.
- 1.4 The deposits observed in the excavated trench consisted of silt materials that clearly belonged to the fill of the moat.
- 1.5 From the results of this and earlier investigations it would appear that the proposed pipeline along the moat embankment at Flint Castle would lie within the fill of the moat.

## 2. ACKNOWLEDGEMENTS

2.1 Gifford and Partners Ltd would like to thank the following for their support during this evaluation project: Mr G T Carter, M N Woodward and Mr P Lea of Acer Wallace Evans, for their assistance and provision of mechanical plant; and Mr R Avent and Dr S Rees of CADW.

2.2 The Gifford staff involved in this project were:

T J Strickland	-	Project Director.
A Thompson	-	Editing of report and project management.
A Parry	-	Preparation of report, site supervisor.
J Miller	-	Site assistant.
L Morris	-	Typing of the report.

## 3. ABBREVIATIONS

*c.*            *circa*

NGR           National Grid Reference

OS            Ordnance Survey

pers. comm. personal communication

SMR           Sites and Monuments Record (Clwyd)

## 4. INTRODUCTION

### 4.1 Reason for Project

4.1.1 Delyn Borough Council propose to construct a new pipeline to augment existing sewers and to prevent the flooding of properties in Flint town centre.

4.1.2 Acer Wallace Evans, on behalf of Delyn Borough Council, have submitted an application for Scheduled Monument Consent (18 July 1994) in order to construct the proposed pipeline in Flint Castle moat embankment.

4.1.3 Alternative routes for the pipeline have been considered and rejected on the basis of several factors involving public safety, engineering considerations and high costs.

- 4.1.4 The proposed pipeline involves excavating a supported trench to contain a 625mm concrete pipe - to a depth of 3.5-5m with a width of c.1.6m. The pipe trench is set to run through the moat embankment to the south of Flint Castle. Timbers are to be inserted parallel to the pipeline trench to a depth of c.600mm. The timbers will support made-up ground on top of the embankment to act as a track for the trench excavator.
- 4.1.5 Flint Castle is a Scheduled Ancient Monument (County Monument no. 295) and a Grade I Listed Building under the care of CADW (reference no. 1/1800/F3). An archaeological investigation was therefore required to determine the archaeological implications of the proposed works.
- 4.1.6 Gifford and Partners were appointed to carry out the archaeological investigation according to a Specification prepared in consultation with Acer Wallace Evans and Mr R Avent of CADW. The Specification is written in accordance to the guidelines set out in the English Heritage document *Management of Archaeological projects, second edition* (1991) and the Institute of Field Archaeologists document *Standard and Guidance for Archaeological Field Evaluations* (1993). The Specification is reproduced in Appendix A.

## 4.2 Location

- 4.2.1 Flint Castle stands on a rocky outcrop on the southern shore of the Dee Estuary at NGR: SJ 247 733, just above sea level. To the north of the castle is an industrial estate situated on reclaimed land, whilst to the east and south is estuarine marshland, and to the west is the town of Flint.
- 4.2.2 The evaluation trench was located as illustrated on Figure 1.
- 4.2.3 The solid geology of the area is formed of carboniferous coal measures, whilst the drift geology is complex including glacial (boulder) clay deposits and estuarine alluvium (British Geological Survey, Sheet 106, 1992).

## 4.3 Objectives

- 4.3.1 To identify if the external bank of the medieval moat lies within the embankment and if it would be affected by the proposed pipeline.
- 4.3.2 If the medieval moat bank is identified, to assess its form, date, alignment and quality/level of preservation.
- 4.3.3 To assess whether any archaeological deposits survive between the edge of the medieval moat and Castle Dyke Street.



- 4.3.4 To determine the effect of the proposed works, in relation to the piling, on archaeological deposits.
- 4.3.5 To determine the requirements of any mitigatory measures considered necessary.

#### **4.4 Methodology**

- 4.4.1 A 7 x 2m trench was excavated across the Castle Moat embankment. The trench was located at the eastern end of the proposed pipeline. The location was chosen to allow access to previously undisturbed deposits to be excavated in an area where the external bank of the medieval moat may have been present.
- 4.4.2 No further trenches would be excavated if the results from the first trench indicated that the proposed pipeline would lie entirely within deposits belonging to the moat fill. Allowance was made for two further trenches to be excavated if the results from the first trench indicated that the medieval moat bank would be affected by the proposed works.
- 4.4.3 A mechanical excavator was used to remove and backfill the deposits from the evaluation.
- 4.4.4 The trench was excavated to a depth of c. 4.5m below ground level. At this level shale bedrock was encountered. The trench excavated extended eastwards to 1.5m from the pavement along Castle Dyke Street. It was not possible to excavate any closer to the pavement without disturbing the pavement. Water pumps were in operation during the excavation given that the water table was c. 1m below ground level.
- 4.4.5 The nearest OS datum point was located on the railway bridge in Castle Road, however, during engineering work a temporary bench mark was located near Sea Villa (see Figure 1).
- 4.4.6 Artefacts observed during the trench excavation were collected from the spoil for dating evidence.

#### **4.5 Timetable**

The evaluation trench excavation was undertaken on the 22 August 1994.

## 5. ARCHAEOLOGICAL/HISTORICAL BACKGROUND

- 5.1 Little evidence has been recovered from the town of Flint, although the hinterland demonstrates significant activity in the area during the Prehistoric period. Evidence for Neolithic settlement has been located at Moel y Gaer hillfort, 5km south-west of Flint (Manley, *et al* 1991, 58), whilst Bronze-Age stray finds are known from Mold (Manley *et al* 1991, 73) and Oakenholt. Both highland settlement in the Clwydian Hills and lowland activity from sites such as Prestatyn are also known from the Iron Age (Manley *et al* 1991, 71).
- 5.2 Considerable Roman activity is known to have taken place in the area of Flint. A former Roman road linking *Deva* (Chester) and *Varae* (St Asaph) is thought to pass through Flint town (Margary 1973, 348) and settlements dating from the first century onwards have been identified, including an industrial centre at Pentre Farm (O'Leary, 1989). Roman period artefacts and possible building remains are also thought to have been found 300m north-west of Flint Castle in c. 1700 (Clwyd Sites and Monuments Record number 301).
- 5.3 It appears that during the sixth and seventh centuries the Flint area at times came under the sway of the Anglo-Saxon kingdom of Mercia. The Anglo-Saxon kings constructed both Watt's Dyke and Offa's Dyke along their border with the Welsh (Manley *et al* 1991, 134) - Watt's Dyke lies 2km south-west of Flint.
- 5.4 The Castle and fortified town at Flint were established in AD 1277 by Edward I of England during a campaign against Prince Llewelyn of Gwynedd. It was one of the first of a number of such fortified settlements to be built by Edward and construction work continued into the 1280's. The name of the town is probably derived from the Old English *flint* meaning rock or stone, referring to the rocky site upon which the Castle stands (Davies 1959, 24).
- 5.5 The Castle has two wards, the Inner and Outer. The Inner Ward, on the seaward side of the Castle, is square in plan, with round towers at each corner, including a circular keep at the south-east angle and a deep moat, probably originally filled by the sea, to the west. The Outer Ward comprises an irregular area between the Castle and the defended town, defined to the west by a moat, possibly also a stone wall.
- 5.6 During the Civil War the Castle changed hands a number of times before being surrendered to Parliament in 1646. The Castle was subsequently slighted but much of the Inner Ward remains intact. The County Gaol, built in the Outer Ward in the eighteenth century, was only demolished in 1970.
- 5.7 The area to the west of the lane connecting Castle Dyke Street with the western defences of the Castle was the scene of intense industrial activity in the later



nineteenth and twentieth centuries. This largely comprised a chemical works which was demolished in the mid-twentieth century. Previous excavations suggest that this demolition was accompanied by considerable earth-moving activity, leaving little or no stratigraphy above undisturbed natural deposits, to the west of the Castle (Hannaford 1993, 33).

- 5.8 Archaeological excavations during 1971-1974 established the former presence of a gatehouse and bridge across the outer moat, which appeared to have a stone revetment (Miles, unpublished).
- 5.9 Archaeological investigations in 1988 clarified the former extent of the Outer Ward to the west and north (Hannaford, 1993).
- 5.10 An investigation by Gifford and Partners in July 1994 involved the machine excavation of six trenches within the moat of the Castle. The location of these trenches are illustrated on Figure 1. Post-medieval deposits were uncovered in the six trenches, to a maximum depth of 1.5m from the ground surface. A consistent silt layer was identified in the three southernmost trenches which was thought to be moat fill, of possible medieval date.

## **6. RESULTS OF TRENCH EXCAVATION**

### **6.1 Summary**

All of the deposits uncovered in the evaluation trench appeared to be of post-medieval/modern origin. Beneath the present turf-line were a series of deposits (in the uppermost two metres) which comprised building debris and levelling deposits. Post-medieval deposits capped by a darker deposit interpreted as buried turf line, were located beneath the building debris and levelling deposits. The lower two metres of deposits within the trench comprised two layers of silty material, interpreted as moat fill.

### **6.2 Stratigraphic Narrative (Figures 2 and 3)**

- 6.2.1 The ground surface at the location of the evaluation trench comprised a 120mm layer of sandy-clay-loam (context 1).
- 6.2.2 Underlying context 1 was a layer of very dark greyish-brown sandy-clay-loam (context 2) 100mm thick and extending across the entire extent of the trench. The sandy-clay-loam contained large quantities of rounded pebbles, c. 60mm in diameter, making up approximately 80% of the layer. Context 2 was interpreted as a modern levelling layer.



- 6.2.3 Underlying context 2 was a layer of brown clay-loam (context 3). This clay-loam tapered from 1250mm at the southern end of the trench to 380mm at the northern end. The clay-loam was made up of approximately 10% modern brick and was interpreted as a modern levelling layer.
- 6.2.4 Underlying context 3 was a lens of brown clay (context 4). This clay tapered from 200mm at the southern end of the trench to a point approximately 2.1m from the southern end where it ended. This deposit was interpreted as a modern levelling layer.
- 6.2.5 Underlying context 4 was a deposit of dark brown sand (context 5), 280mm thick at the southern end of the trench and stopping suddenly at 2.1m - mirroring the overlying deposit (context 4). The deposit was made up almost entirely of brick and building debris (98%) and was interpreted as modern dumping perhaps associated with the demolition of the former chemical works known to have existed in the area (Hannaford 1993, 31 and 33).
- 6.2.6 Underlying context 5 was a deposit of dark brown sandy-clay (context 6) 230mm thick and lying across the entire extent of the trench, until a point 2.1m from the southern end where it tapered to 90mm underlying context 5. This layer was interpreted as a buried turf line.
- 6.2.7 Underlying context 6 was a layer of very dark grey silty-clay (context 7) 1150mm thick at the northern end and 900mm thick at the southern end of the section. This deposit contained the occasional fragment of modern brick and was interpreted as post-medieval silting.
- 6.2.8 Underlying context 7 was a layer of greyish-brown silty-clay (context 8) 1100mm thick at the northern end of the section and 790mm thick at the southern end. The presence of a fragment of plastic from the base of the layer may suggest that context 8 is a post-medieval silting layer. However, given the presence of modern dumping above it, it is possible that the plastic fragment is intrusive, introduced into the silt by water action.
- 6.2.9 Context 7 lay immediately above an uneven layer of shale bedrock (context 9).

### **6.3 Finds Summary**

- 6.3.1 Very few artefacts were observed and recovered during the machine excavation of the trench. The artefacts comprised pottery sherds, brick and plastic fragments.

- 6.3.2 Material associated with the demolition of the chemical works - brick and rubble - was not collected.
- 6.3.3 The artefacts recovered were of post-medieval/modern origin and so were generally well-preserved. The dating potential of the finds is generally good, with all the material clearly identifiable to the post-medieval/modern period. Given the nature of the excavation - by machine - and that many of the finds were observed only in the spoil, it is difficult to assess accurately whether or not the finds were in context. Since there appears to have been little disturbance of the layers that have built up in the trench and given the dating consistency of the finds observed, it can be said that the finds clearly reflect post-medieval/modern deposition.
- 6.3.4 Palaeoenvironmental samples were not taken since the trench was too unstable to allow such work, and was backfilled without being shored after consultation with CADW, and with the approval of CADW.

## 6.4 Discussion

6.4.1 The evaluation trench revealed a 3-stage sequence of deposition:

- The lowest and earliest layers (contexts 7 and 8), appear to be naturally-formed silt layers, probably the result of water-action. They clearly relate to layers 403 and 404 in Trench D of the evaluation carried out in July 1994, (Gifford and Partners Report No. 6732.03, Page 12, Figure 8).
- Context 6 appears to represent a stabilisation of the ground surface at some time in the relatively recent past. It may be the surviving traces of a former ground surface, although it could equally form the base layer of the sequence of deposits lying above.
- Contexts 1, 2 and 3, from their contents and stratigraphical position, appear to comprise modern dumping layers, probably introduced to provide a dry, accessible walking surface.

6.4.2 The survival of silt layers at the bottom of the evaluation trench indicates that the outer bank of the moat lies south of the position of this trench, possibly under Castle Dyke Street. It is possible that all the examined deposits may be of modern origin and that therefore the moat bank may formerly have stood in this position. However the silty composition of the lower layers suggests that this is not the case.



## **7. CONCLUSIONS**

### **7.1 Confidence Rating in the Methodology**

The trench was suitably located to investigate the archaeological implications of the proposed pipeline in relation to identifying if the medieval moat edge would be affected. The aim of identifying the nature of the deposits within the trench was achieved.

### **7.2 Implications of the Results of the Archaeological Investigation**

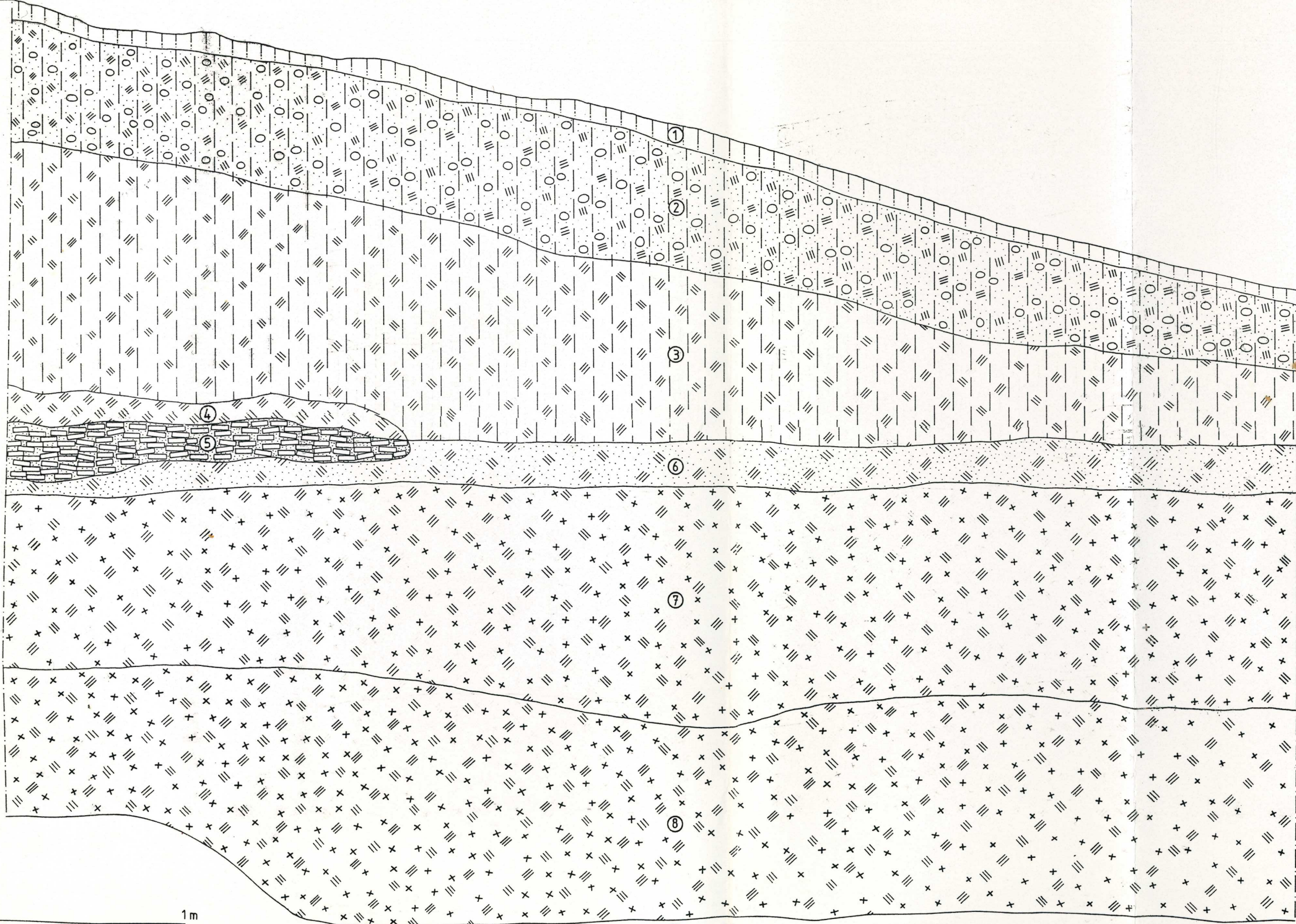
The trench was excavated to a maximum depth of c. 4.5m. No evidence of medieval deposits associated with the medieval moat edge or between the moat edge and Castle Dyke Street were identified. The results confirm that the proposed pipeline would lie within the moat fill.

### **7.3 Mitigatory Measures**

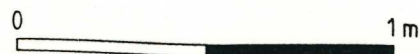
Given that it appears that the proposed pipeline would lie within moat fill no further evaluation works are required. A watching brief during excavation of the pipeline trench however may be appropriate so as to observe and record if there is any change in the deposits along the length of the proposed pipeline.



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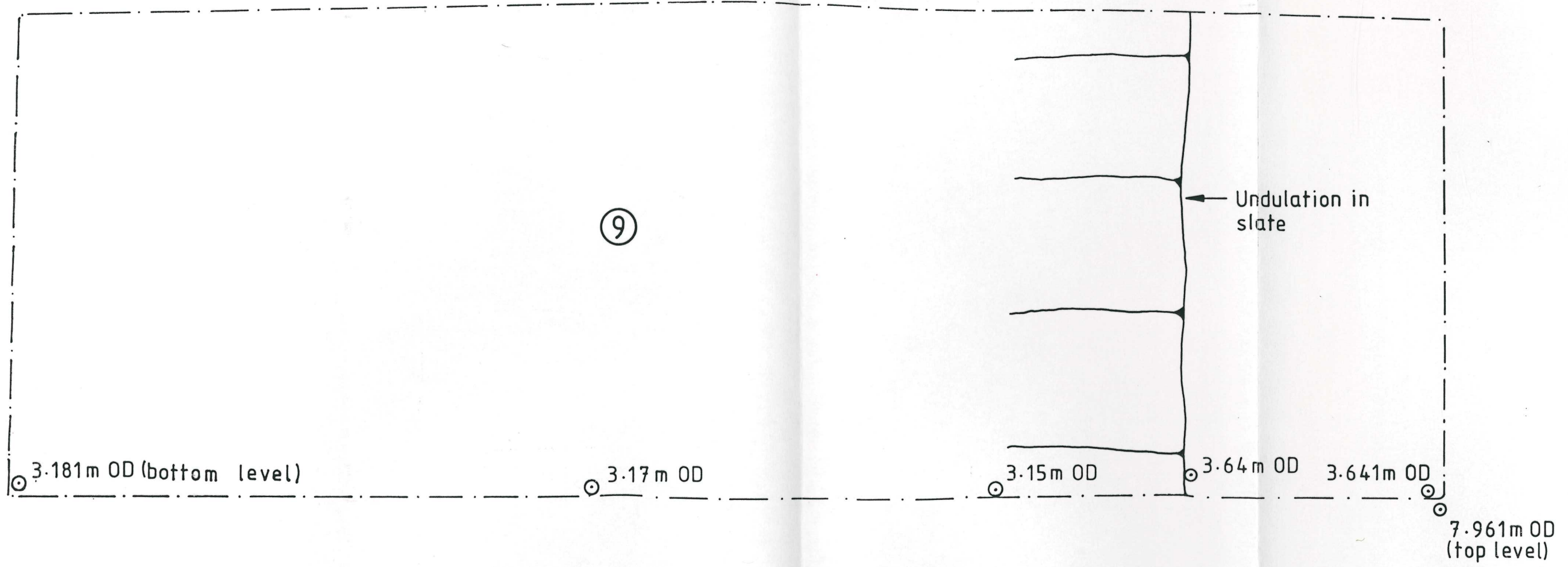


⑧ (SHALE BEDROCK)



Project FLINT TOWN CENTRE PIPELINE		
Title <b>FIGURE 2</b> EAST FACING SECTION		
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Date 25-8-94		
Scale 1:10		
Drawing no. 6804:1D	Rev.	
<b>GIFFORD AND PARTNERS</b>		
Archaeology		





Project  
 FLINT TOWN CENTRE  
 PIPELINE

Title FIGURE 3  
 PLAN OF TRENCH 1

Drawn AP	Checked C/Q	Approved AT
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Date 25-8-94

Scale 1:20

Drawing no. 6804:2D	Rev.
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 Archaeology

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**APPENDIX A**  
**Project Specification**

**SPECIFICATION FOR AN ARCHAEOLOGICAL  
EVALUATION AT CASTLE MOAT EMBANKMENT,  
FLINT CASTLE**

**C O N T E N T S**

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**DRAWINGS**

**Acer Wallace Evans Drawing No. D0040-101 with proposed trench locations.**



**1. INTRODUCTION**

- 1.1 This specification has been prepared by Gifford and Partners Ltd in consultation with Acer Wallace Evans and Mr Richard Avent of Cadw.
- 1.2 The specification is written in accordance to the guidelines set out in the English Heritage document *Management of Archaeological Projects*, second edition (1991) and Institute of Field Archaeologists document *Standard and Guidance for Archaeological Field Evaluations* (1993).

**2. SITE LOCATION**

- 2.1 Flint Castle stands on a rocky outcrop on the southern shore of the Dee Estuary at National Grid Reference: SJ 247 733, just above sea level.
- 2.2 The solid geology of the area is formed of Carboniferous Coal Measures, while the drift geology is complex including glacial clay deposits and estuarine alluvium (*British Geological Survey, Sheet 106 1992*).
- 2.3 To the north of the castle is an industrial estate situated on reclaimed land, whilst to the east and south is estuarine marshland and to the west is the town of Flint.
- 2.4 The evaluation area comprises a pipeline route in the Castle Moat Embankment, as illustrated on Acer Wallace Evans Drawing no. D0040-101 (enclosed).

**3. PLANNING BACKGROUND**

- 3.1 Acer Wallace Evans, on behalf of Delyn Borough Council, have submitted an application for Scheduled Monument Consent (18 July 1994) in order to construct the proposed pipeline in Flint Castle moat embankment.
- 3.2 Alternative routes for the pipeline have been considered and rejected on the basis of several factors - involving public safety, high costs, and engineering considerations.

**4. ARCHAEOLOGICAL/HISTORICAL BACKGROUND**

- 4.1 Flint Castle is a Scheduled Ancient Monument, County no. 295. It is a Grade I Listed Building with Cadw reference no. 1/1080/F3.
- 4.2 The Castle and fortified town at Flint were established in AD 1277 by Edward I of England during a campaign against Prince Llywelyn of Gwynedd. The name of the town is probably derived from the Old English *flint* meaning rock or stone, referring

to the rocky site on which the Castle stands (*Flintshire Place Names* Davies 1959, 24).

- 4.3 No earlier settlement is known to have been present on the site, although Roman period artefacts and possible building remains are thought to have been found 300m north-west of the castle in c. 1700 (Clwyd Sites and Monuments Record number 301).
- 4.4 The Castle is formed of two wards, the inner and outer. The Inner Ward, on the seaward side of the castle was square in plan with round towers at each corner, including a large circular keep at the south-east angle, with a deep moat, probably originally filled by the sea, to the west. The Outer Ward comprised an irregular area between the castle and the defended town defined to the west by a moat, and possibly also a stone wall.
- 4.5 The Castle was slighted after the Civil War, but much of the Inner Ward remains intact. The County Gaol was built in the Outer Ward in the eighteenth century and was demolished in the early-twentieth century.
- 4.6 Parts of the Outer Ward to the west have been affected by nineteenth and twentieth century landscaping.
- 4.7 Archaeological excavations during 1971-74 established the former presence of a gatehouse and bridge across the outer moat and a stone revetment to the moat.
- 4.8 Archaeological excavations in 1988 clarified the former extent of the Outer Ward to the west and north.
- 4.9 Gifford and Partners have recently (July 1994) completed an archaeological investigation at Flint Castle. This investigation involved the machine excavation and archaeological recording of six trial-trenches located within the moat of the Castle. The excavation was limited to a maximum depth of 1.5m. The results indicated that:
  - the level of groundwater could be found at 1-1.5m below the existing ground surface.
  - the excavation to a maximum depth of 1.5m uncovered post-medieval deposits.
  - no datable medieval deposits were identified but a consistent silt layer in the three southernmost trenches could be of medieval origin.



**5. AIMS OF EVALUATION**

- 5.1 To identify if the external bank of the medieval moat lies within the embankment and if it would be affected by the proposed pipeline.
- 5.2 If the medieval moat bank is identified to assess its nature form, date, alignment and quality/level of preservation.
- 5.3 To assess whether any archaeological deposits survive between the edge of the medieval moat and Castle Dyke Street.
- 5.4 To determine the affect of the proposed works, in relation to the piling, on archaeological deposits.
- 5.5 To determine the requirements of any mitigatory measures considered necessary.

**6. METHODOLOGY**

- 6.1 A 7 x 2m trench across the Castle Moat embankment will be excavated. The trench will be located at the eastern end of the pipeline. This location will allow previously undisturbed deposits to be excavated in an area where the external bank of the medieval moat (if it exists) is most likely to be encountered.
- 6.2 If the results of the first trench indicate that the proposed pipeline will lie entirely within ditch fill/silts then no further trial-trenches would be required. However if the lip of the moat bank is identified then two further trenches should be excavated to the west and east of the causeway. These trenches would measure c. 4 x 2m and would confirm the presence and alignment of the medieval moat.
- 6.3 A mechanical excavator will be used to remove the deposits.
- 6.4 Given the topography of the embankment area and previous experience of excavating at Flint Castle it is anticipated that extensive shoring of the trench and pumping of water will be required during the excavation.
- 6.5 All artefacts, features and deposits revealed must be recorded using a recognised recording system such as the one based on that developed by English Heritage and the Central Archaeology Service.
- 6.6 A levelling survey related to the nearest Ordnance Survey datum point will be completed covering the evaluation works.



- 23
- 6.7 The photographic record shall comprise 35mm format colour slides and monochrome prints with a supporting index.
  - 6.8 The drawn record shall comprise plans of the evaluation site at a suitable scale, trench plans at a scale of 1:20 and sections at a scale of 1:10.
  - 6.9 Artefacts and ecofacts will be collected and recorded stratigraphically. All artefacts will be labelled, packed and stored in appropriate materials and conditions to ensure that no deterioration occurs. All artefact and ecofact processing and storage will be carried out in accordance with United Kingdom Institute for Conservation (Archaeology Section) guidelines and shall accord with relevant Institute of Field Archaeologists *Guidelines on Finds Work*.
  - 6.10 Typologically distinct/closely datable artefacts will be recorded three-dimensionally, where appropriate.
  - 6.11 Palaeoenvironmental samples will be collected from all deposits considered suitable and as agreed with Cadw.
  - 6.12 Information on known services on the evaluation site will be sought prior to the works and all reasonable precautions taken to avoid damage to such services.
  - 6.13 Given public access to the Castle it will be important to ensure that trial-trenches are secure - fencing should be erected and maintained as required to a standard acceptable to Cadw.
  - 6.14 Arrangements will be made with Delyn Borough Council and Acer Wallace Evans for the storage of spoil resulting from the trial trenching work. It is expected that spoil will be stored adjacent to trenches but at least 2m from the edge of the trench.
  - 6.15 The trial trenching will be backfilled to the satisfaction of Delyn Borough Council, Acer Wallace Evans and Cadw and the ground surface re-seeded as required.

## 7. POST-EXCAVATION ASSESSMENT

- 7.1 Immediately upon completion of the site work an assessment of the site archive will be undertaken to include all written, drawn and photographic records, artefacts, ecofacts and samples.
- 7.2 Artefacts will be assessed to provide dating, social, economic and technological information. Special or unusual features will be highlighted and reference made to other material recovered from the immediate neighbourhood.

- 7.3 The requirements for artefact conservation will be discussed with a specialist conservator as necessary and agreed with Cadw.
- 7.4 The suitability of deposits identified during the sample excavation for palaeoenvironmental analysis will be assessed and agreed with Cadw.
- 7.5 The site records will be analysed and a site matrix prepared to illustrate the stratigraphic relationships of the deposits uncovered during the trial trenching.

**8. REPORT**

- 8.1 Two copies of a fully illustrated report on the results of the evaluation will be submitted to Acer Wallace Evans, one to Cadw, and one to the Clwyd Sites and Monuments Record. A further copy will form part of the project archive.
- 8.2 The report will include:
  - 8.2.1 a non-technical summary.
  - 8.2.2 a table of contents.
  - 8.2.3 an introduction
  - 8.2.4 a statement of the project aims.
  - 8.2.5 an account of the project methodology undertaken with assessment of same.
  - 8.2.6 details of the planning history, site geology, archaeological and historical background of the evaluation site.
  - 8.2.7 transcripts of relevant sources where appropriate.
  - 8.2.8 a description of the evaluation results including any archaeologically significant features/deposits and potential features/deposits identified within the trial trench.
  - 8.2.9 a discussion of the location, nature, extent, date, quality, condition and significance of any archaeological deposits/features uncovered, together with a discussion of their relationship with known archaeology in the vicinity.
  - 8.2.10 relevant plans (scale 1:20) and sections (scale 1:10) of the trial-trenches, labelled with context numbers and cross-referenced with the written report.
  - 8.2.11 other appropriate drawings, maps, location plans and photographs.



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- 8.2.12 a description of the finds and palaeose samples collected during the evaluation including an exposition of the methodologies employed, a statement on the presence or absence of material and an assessment of preservation. A summary interpretation of the finds including reference to any unusual or important features of the assemblage will also be included.
- 8.2.13 a full bibliography of sources consulted.
- 8.2.14 a supplementary bibliography of sources identified but not consulted.
- 8.2.15 an index to the project archive and a statement of its location/proposed repository.
- 8.3 A draft version of the report will be made available to Acer Wallace Evans/Delyn Borough Council and Cadw for comment before the final report is issued.
- 8.4 With the agreement of Delyn Borough Council, and if appropriate, a summary report on the evaluation will be published in a suitable local journal, such as *Archaeology in Wales*.
- 9. ARCHIVE**
- 9.1 The project archive will consist of all original records, artefacts, ecofacts/samples and all relevant documentation relating to the evaluation.
- 9.2 The archive will be prepared according to the *Management of Archaeological Projects* (English Heritage, Second Edition, 1991). The records therefore will be fully ordered and indexed.
- 9.3 The archive will comply with the United Kingdom Institute for Conservation (Archaeology Section) *Guidelines for the Preparation of Excavation Archives for Long-Term Storage* (1990) and to the requirements of the agreed archive depository.
- 9.4 An appropriate arrangement with the Client/landowner(s) regarding the ownership and disposal of the archive will be agreed as soon as possible after the commencement of contract. Written consent from the landowner(s) must be obtained before archive deposition.
- 9.5 The archive will be deposited at a suitable repository, such as a local museum, within six months of the completion of the evaluation with the agreement of the Client/landowner(s).
- 9.6 A synopsis of the archive will be lodged with the Clwyd Sites and Monuments Record.

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- 9.7 Reproducible elements of the archive will be security-copied on microfiche and submitted to the National Archaeological Record (Swindon).

## 10. CONFIDENTIALITY, SECURITY AND ACCESS

- 10.1 All information obtained directly/indirectly from the Client in connection with the project must be treated as confidential. The archaeological contractor will not, without the prior written consent of the Client, disclose any information relating to the project or publicise the project in any way.
- 10.2 The archaeological contractor will be responsible for the security of excavated material and records relating to the evaluation prior to submission of the archive to the final repository.
- 10.3 The archaeological contractor will restrict access to the evaluation site if required to the Client and Cadw and their nominated representatives.

## 11. COPYRIGHT

The archaeological contractor shall retain full copyright of any commissioned reports, tender documents or other project documents, under the *Copyright, Designs and Patents Act* of 1988 with all rights reserved.; excepting that the archaeological contractor will provide an exclusive licence to the Client for the use of such documents by the Client in all matters directly relating to the project.

## 12. HEALTH AND SAFETY

- 12.1 The evaluation will be undertaken in accordance with the health and safety procedures as set out in:-
- 12.1.1 the *Health and Safety at Work Act* (1974).
- 12.1.2 the Standing Conference of Archaeology Unit Managers *Health and Safety Manual* (1991).
- 12.1.3 the Council for British Archaeology *Safety in Archaeological Fieldwork* (1989).
- 12.2 In line with recent legislation a Risk Assessment should be prepared and agreed with the Client prior to the commencement of the project.
- 12.3 All necessary protective clothing and equipment will be used. The archaeologists on site will wear hard hats at all times. Ear defenders and eye goggles will be used as required when machinery is in operation.

12.4 A first-aid kit and accident book will be kept on site at all times, with a list of contact names/addresses and telephone numbers of the nearest doctors/hospital.

**13. PROJECT MONITORING**

13.1 The project will be monitored by the Client and Cadw.

13.2 The following meetings will be arranged to ensure the smooth progress of the evaluation:

13.2.1 a preliminary meeting to agree the Project Design and conditions of contract.

13.2.2 a site meeting to discuss the results of the trial trenching.

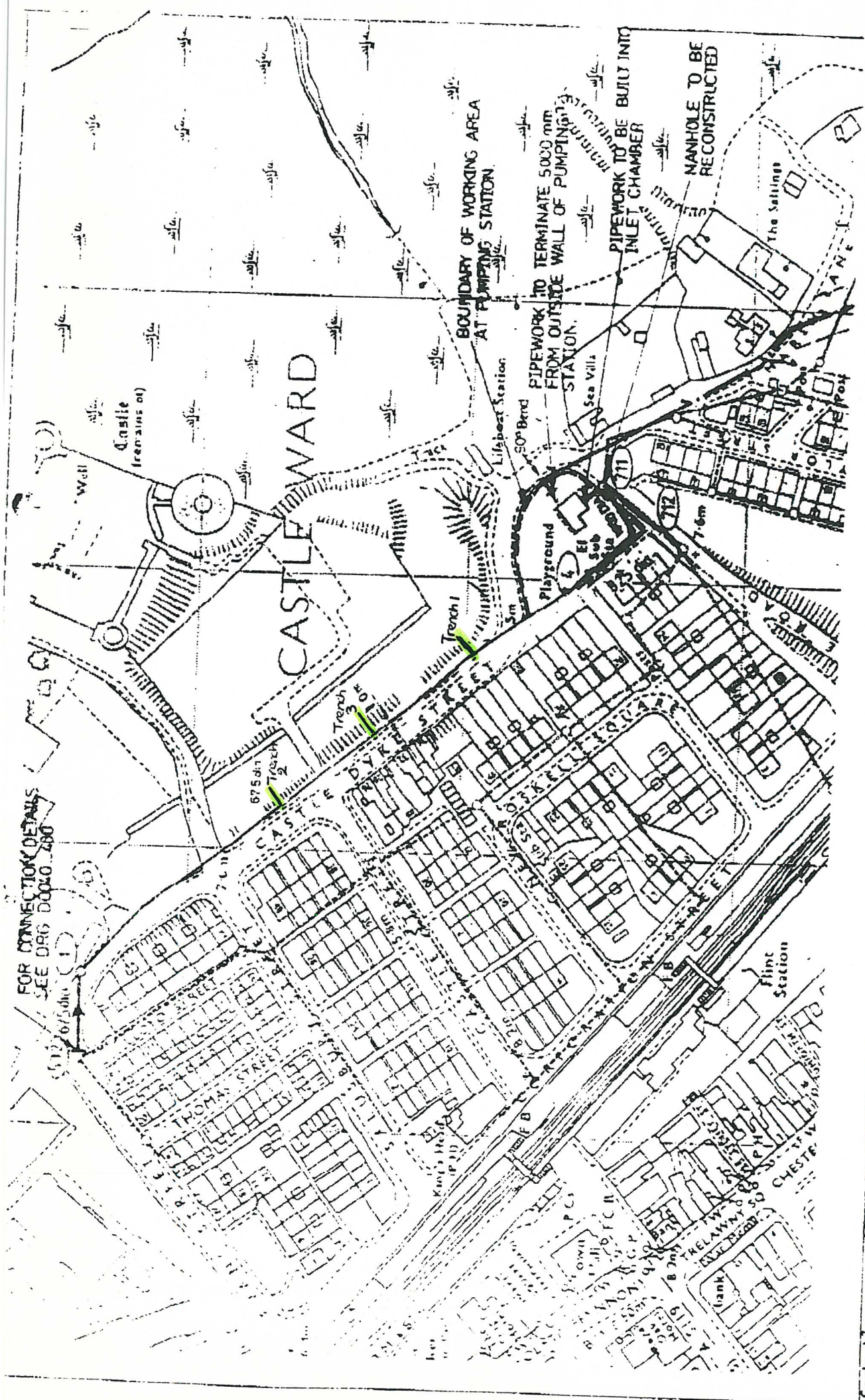
13.2.3 a meeting to discuss the draft report before submission of the final report.

13.3 The report and archive preparation may also be subject to monitoring.

**14. STAFF**

The site director should be a member of the Institute of Field Archaeologists.





Scale A3	1:1250	Date	13-07-94	Scheme	FLINT TOWN CENTRE DRAINAGE	Title	ROUTE PLAN ALTERNATIVE
Drawn	gios	Approved					
Doc No		Checked					
P.H. ALSTON CONSULTANTS Shire Hall, Maid, Chesh. CV17 9JZ Drg No. D0040 101 Rev							ACCR/WALLACE EVANS Tel 0353 7530 Fax 0353 7600 Copyright Reserved