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Leamington Wharf

Union Canal, Fountainbridge, Edinburgh:



Archaeological Evaluation.

Andrew Dutton

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Client: Michael Laird Partnership Architects
on behalf of Edinburgh Quay Ltd.

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Summary

Headland Archaeology was commissioned by Michael Laird Partnership Architects on behalf of Edinburgh Quay Ltd to undertake an initial appraisal of the archaeological implications of a proposed development on the south bank of the Union Canal between the Leamington Draw Bridge (NT 24307261) and the Viewforth Bridge (NT 24447270). The footprint of the canal is protected by legislation as a Scheduled Ancient Monument. This document is, therefore, submitted as supporting information for a Scheduled Monument Consent application by Edinburgh Quay Ltd.

The area of archaeological interest comprises an active section of the Glasgow – Edinburgh Union Canal. The scope of this present report, and the programme of work it sets out, is intended to inform the client, Edinburgh Quay Ltd, Historic Scotland and Edinburgh City Council as Local Planning Authority on the likely impact that any development of the area is likely to have on surviving features of archaeological significance associated with the form, function and development of the canal and any subsequent associated activity that took place on the canal banks since its original construction between 1818 and 1819. The report briefly outlines the historical and archaeological background to the canal and sets out a programme of archaeological works designed to mitigate against the impact of the development on the archaeological resource.



Plate 1. (above) Leamington Wharf looking east. The lower courses of the north wall are the original 1818 revetment. The original width of the canal is represented by the edge of the track, centre left, and the north wall.

Plate 3. (below) Masonry of the original 1818 masonry revetment wall adjacent to the re-located lift bridge. Immediately in front of the modern pontoon is the location of the sunken barge that is shown on the 1853 Ordnance map.



Plate 1. (below) A section of the original 1818 masonry revetment wall defines the present south bank. The garages on the left form the remnants of the late 19th / early 20th century brick buildings on Rope Walk.



Plate 4. (above) Adjacent to the Viewforth Bridge the canal is at its narrowest. The level terrace here is the site of one of the buildings shown on the 1877 Ordnance map.



Plate 5. (left) Leamington Wharf, viewed from the west. The ragged alignment of the south bank is in stark contrast to the formal line of the north wall. The single storey garages and lock-ups define the area of Rope Walk.

1 INTRODUCTION

Headland Archaeology Ltd was commissioned by Michael Laird Partnership Architects on behalf of Edinburgh Quay Ltd to undertake an initial appraisal of the likely impact of a proposed canal-side development at Leamington Wharf, Fountainbridge, Edinburgh. The present canal footprint and the Leamington Bridge are both Scheduled Ancient Monuments. This report also sets out a programme of archaeological works as mitigation to offset any impact that development would have on the existing canal environment and is submitted as supporting information to an application for Scheduled Monument Consent.

Particular emphasis has been required to attempt to establish the true, early alignment of the southern bank that has hitherto been a matter of some conjecture. The interim results presented in this report rely mainly on the study of comparable cartographic sources, but incorporate the visual findings of an initial site visit. The scope of the archaeological works contained within this report is based on discussions with Historic Scotland and City of Edinburgh Council Archaeology Service.

2 SITE LOCATION and DESCRIPTION

The Leamington Wharf section of the Union Canal is located immediately to the south of Fountainbridge, Edinburgh, between the Leamington Lift Bridge (constructed 1906) and the Viewforth bridge, and forms the western extent of the Lochrin Basin. The area forms a narrow strip of land comprising some 2080 m². The south side of the strip is known as Rope Walk and is presently the location of garages and workshops that make use of earlier surviving structures on the site.

The Leamington Bridge is a vertical lift bridge. It was built by Armstrong of Newcastle in 1906 and was originally located further up the canal, which at that time extended further towards the centre of Edinburgh. When the canal (originally extending to the north of Fountainbridge) was shortened in 1922 the bridge was moved to its current location at Gilmore Park.

3 HISTORICAL BACKGROUND

In 1818-1819 the early industrial development of the Fountainbridge area was benefited by the construction of the (Edinburgh and Glasgow) **Union Canal**, designed to link Edinburgh to the Forth and Clyde Canal, south of Falkirk. Funded by public subscription, investors hoped to exploit the increasing demand for coal in the city. Typically, overland transport at that time was prohibitively expensive and so Edinburgh's coal had to be brought in via the Firth of Forth from Alloa, Wemyss and Newcastle, attracting "coastwise coal duty". Naturally, owners of inland coal-pits, including the Duke of Hamilton, were keen to see a canal link their coal-fields to the growing population of Edinburgh and backed the canal's construction accordingly. The canal was expected to carry other cargoes, such as lime from Linlithgow and East Calder and meal from the Avon and Almond mills, as well as serving as a passenger route (Lindsay 1968).

Following completion in 1819 the canal terminated to the north of Fountainbridge, ending in the Port Hopetoun basin, north-east of the study area. This was furnished with cellars, wharfs, stables, overseers' houses, passenger shelters and an inn. The canal successfully attracted the cargo trade, bringing timber, stone, slate, brick sand and lime into the city. The coal trade in particular grew rapidly and in 1823 a dedicated coal basin, named Port Hamilton after the Duke, was opened. Further warehouses, offices and dwelling-houses were built in the area as well as boat-yards. Lochrin Basin was built with private money immediately south of Fountainbridge to serve Haig's distillery. Initially, Fountainbridge crossed the canal by way of a wooden drawbridge, to be replaced by a Leamington electric lift bridge in 1906.

The area became industrialised as companies sought to capitalise on the transport link provided by the Canal. Amongst these were the Hopetoun Iron Foundry and a sawmill. The Fountainbridge frontage was occupied by a building, presumably a gatehouse, with a weighbridge at the gateway. The eastern quay was furnished with three cranes. To the west of the canal lay Gilmore Park.

However, the 1840s saw the construction of the Edinburgh & Glasgow Railway and the Canal fell into debt, as the faster and cheaper railway gained commercial pre-eminence. The decline was so severe that shareholders failed to receive any kind of dividend from 1843 onwards and the Canal was transferred to the North British Railway Company in 1865 but remained in decline. The Royal Commission of 1906-9 recorded that "the canal was 'weedy' and inadequately dredged, and that through traffic with the Forth & Clyde had virtually ceased" (Lindsay 1968, 84). Lochrin Basin was abandoned during this period and the Hopetoun Iron Foundry demolished to make way for "The Coliseum", now a bingo hall.

The opening of the Glasgow-Edinburgh railway in 1842 had an immediate and dramatic impact on the Union Canal and by 1848, passenger services were virtually at an end. The same year, the North British Railway Company took over the canal, which became part of the railway in 1861. In 1921, after the move of the Edinburgh meat markets from Fountainbridge to Gorgie, Port Hamilton and Port Hopetoun were sold to Edinburgh Council and the canal infilled, creating a new terminus south of Fountainbridge, subsequently named the Lochrin Basin. The lift bridge was then removed to its current location at Gilmore Park.

Upon completion the Union Canal was 50.6 km (32 miles) long, 11.25 m (37ft) wide at the surface, 7 m (22ft) at the base and 1.5 m (5ft) deep. The course of the canal followed the natural contours of the land and although it had no locks, it boasts the only canal tunnel in Scotland, 631 metres (690 yards) long and the largest and tallest aqueduct. It connected to the Forth & Clyde Canal at Falkirk by a flight of 11 locks, which dropped the canal 33.5m over a distance of 1.5km.

4 OBJECTIVES

The archaeological work was intended to:

1. Examine the evidence for a formal wharf on the offside (south) bank of the canal.
2. Consider the character, extent and quality of any upstanding and potentially buried archaeological remains in the proposed development area contemporary with or predating the Canal's construction.

5 METHODS

- a) A rapid walkover in order to assess the survival of any structures or fittings identified from examined cartographic sources.
- b) To supplement existing maps and diagrams by identifying areas of archaeological interest and potential.

6 RESULTS

Walkover and Cartographic References

The walkover identified sections of walling overlying earlier footings (b-b1 on accompanying plan) that are consistent with the waterway property boundary indicated on the earliest Ordnance Map of 1853. This boundary represents the southern extent of the proposed development.

Immediately north of the boundary wall is a strip of land, which is known from early 20th century cartographic sources as Rope Walk. This name occurs in conjunction with the construction of an apparently single long building. Parts of this brick building survive and are in use to this day.

The location and extent of an original south bank survives as a mortar bonded, intermittent section (a-a1 on accompanying plan) of rubble wall. This is visible along and defines the existing waterfront, extending some 50m east of its present-day junction with the west end wall. The style of the masonry is that of the surviving lower section of the original revetment wall that still forms the northern side of the canal.

Some 4 m south-east of this feature a ground-fast, dressed sandstone block is exposed at the waters edge, approximately in alignment with the course of the early wall. Its exact purpose is presently unknown.

The grass grown stone facing for the 1818 wharf and bridge abutment can be traced at the south-west end of the site. Adjacent to this can be discerned a low bank or platform that seems to correspond to the location of one of numerous 'boathouses' or other canal bank buildings established between 1853 and 1877.

No other surviving structural remains were visible either on the ground or within the shallow waters of the canals' south bank to support the cartographic evidence of the wharfs development. However, the identification of part of the early 19th century wharf frontage does demonstrate that subsequent development along the canal banks here led to a narrowing of the waterway itself, with perhaps less durable materials being employed to create the quay.

7 DISCUSSION

Preliminary evaluation work has revealed the line of the early canal bank. To the north of this line there appear to have been a succession of encroachments into the shallow waters of the south side of the canal in order to create a series of individual landing stages. It seems clear that this activity was directly associated with the buildings immediately to their rear, each perhaps representing individual concerns.

A single brick building dating from the late 19th, early 20th century survives along Rope Walk, and appears to have been contemporary with a number of buildings that once fronted the wharf. Observation could not reveal the location of any of the mapped structures at present ground level, but it is likely that traces of these may yet survive. Given that a number of the buildings appear to have been built over the pre-existing edge of the canal bank, those closest to the water may well have been built of wood.

From the present evidence it seems likely that subsequent wharf frontage after 1853 would have consisted of timber piles supporting decking, driven into the bottom of the canal and, like the sunken barge that was installed by that time adjacent to Leamington Bridge, perhaps reinforced with stone ballast. The shallow nature of the canal banks is graphically shown in the excerpt of a drawing of 1921 (Appendix 2) where plans for a new timber wharf and uploading platforms along the north bank are proposed. It is difficult to be certain whether the double line conventions used on this plan refer to stone wharfs; if so then the survival of further stone walls may be expected north of the earlier stone wharf.

The irregular line representing the south bank of the canal as shown on the 1853 Ordnance map suggests that there may not have been a formal edge to the canal bank adjacent to the Viewport Bridge, or that it was not in evidence at that time. Only on the north side of the canal was there any consistently formal quay; the south bank evolved generically over a period of time, the site of numerous boathouses, wooden jetties and pontoons.

What is likely is the survival of timber and other organic elements in the prevailing anoxic conditions within the canal sediments. The recording of any such structural elements would present an opportunity to closely inform the activities and development of small-scale industry along the canal bank during its working life.

8 MITIGATION

The programme of works set out below is designed to mitigate against the impact of the development on the canal and associated structures.

Further Documentary Research

The first stage will be a thorough assessment of British Waterways archives held in Glasgow and other locations. Information on the original specification of the canal and on the use and development of the canal since it was built in the 1818-19 through to the present day would be the focus of this preliminary stage of work. Of particular interest would be whether this stretch of canal was originally conceived as a temporary basin and, therefore, never formalised with the continuous retaining walls that characterise other stretches of the canal. In addition it is desirable to recover physical, as well as documentary evidence of how the wharf

functioned, addressing such issues as access, types of goods, lifting gear etc.

Site Survey

Once the documentary material has been gathered, a measured survey would be undertaken of the south bank area. This survey would include the structural elements of the canal and associated wharves where visible and the brick structures currently in use as garages and workshops. In addition, the fragmentary remains of any earlier structures retained within modern boundaries will be assessed.

Intrusive Evaluation

The results of the documentary research and the site survey will be mapped and used to determine the position of a series of intrusive trial-trenches. These trenches will test the validity and accuracy of information previously gathered and test for the survival of buried or submerged features relating to the history and development of the canal.

It is proposed that any features identified be grouped into one of the four following categories (after Holden *et al* 2001).

- 1) *Well-preserved features directly linked to the use of the canal basin.*
- 2) *Poorly preserved features related to the use of the canal basin.*
- 3) *Well-preserved features associated with the early 20th century improvement of the area.*
- 4) *Features post-dating the early 20th century improvement of the area.*

Further Works

The site survey and intrusive evaluation will determine the nature, condition, extent and character of any archaeological features that survive within the development area. The results will be used by the Project Team to design a foundation regime that will minimise any potential impact on buried archaeological remains. Where possible archaeological remains will be preserved *in situ* but where this is not possible, they will be preserved through a programme of recording, excavation and reporting of the results prior to development.

In summary, the development offers a rare opportunity to understand the development and use of this little understood section of the Union Canal through documentary research, survey and archaeological excavation where necessary whilst preserving parts of the canal for future generations preserved beneath the proposed development.

8 APPENDIX 1: SOURCES CONSULTED

National Monuments Record of Scotland

The National Monuments Record of Scotland (NMRS) holds records of the following sites in the immediate area of the development:

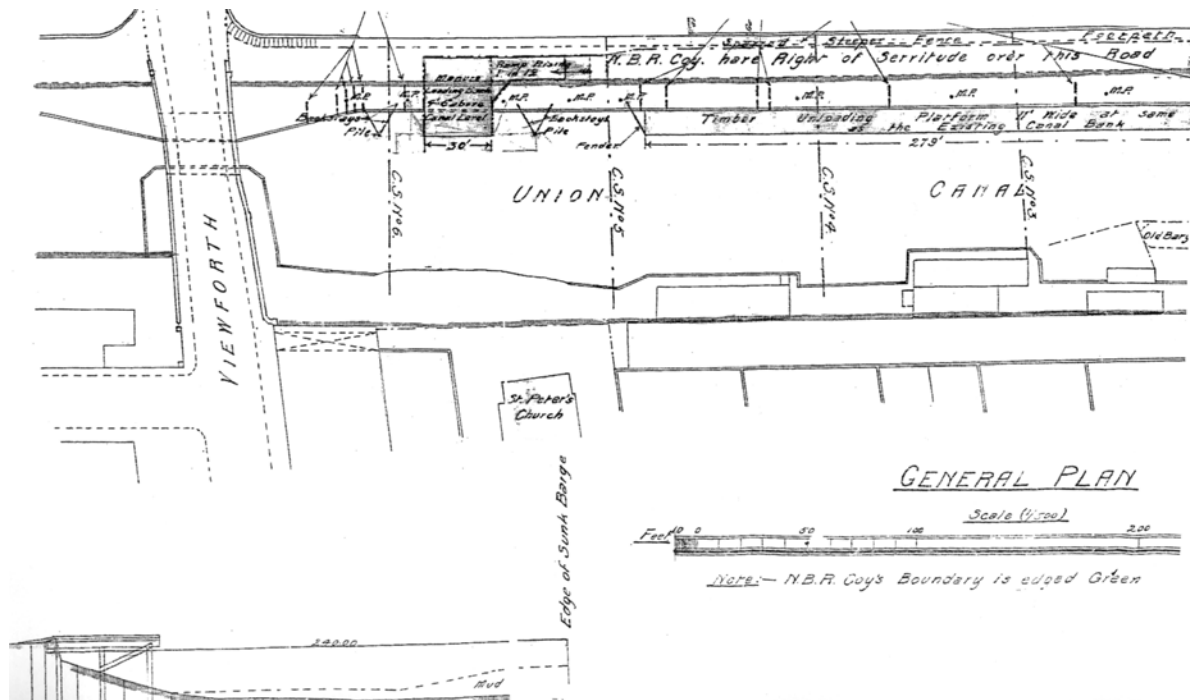
NMRS No. NT27SW 83.00: Union Canal
NMRS No. NT27SW 83.01: Port Hopetoun Basin
NMRS No. NT27SW 83.02: Union Canal
NMRS No. NT27SW 83.05: Port Hamilton Basin
NMRS No. NT27SW 83.06: Lochrin Basin
NMRS No. NT27SW 83.08: Warehouse

Cartographic and other sources

- 1735 Adair, J. *A Map of Mid Lothian*.
1744 Elphinstone, J. *A New and Correct Map of the Lothians*
1763 Laurie, J. *A plan of the County of Midlothian*
1766 Laurie, J. *A Plan of Edinburgh and Places Adjacent*
1773 Armstrong, A. & M. *Map of the Three Lothians*
1786 Laurie, J. *A Plan of Edinburgh and Country Adjacent*
1812 Knox, J. *Map of the Shire of Edinburgh*
1817 Kirkwood, R. *A Map of the Environs of Edinburgh*
1822 Thomson, J. *Northern Part of Edinburghshire*
1828 Sharp, T., Greenwood, C. & Fowler, W. *Map of the County of Edinburgh*
1850 Forester, W. *Map of the County of Edinburgh*
- 1855 Ordnance Survey *Edinburghshire II* 1:1056 (Surveyed 1852)
1896 Ordnance Survey *Edinburghshire New Series III.2* 1:2500 (Resurveyed 1894)
1908 Ordnance Survey *Edinburghshire III.2* 1:2500 (Resurveyed 1894, Revised 1906)
1914 Ordnance Survey *Edinburghshire III.2* 1:2500 (Resurveyed 1894, Revised 1913)
1921 British Waterways. Un-attributed archive drawing. Glasgow
1931 Ordnance Survey *Midlothian III.2* 1:2500 (Resurveyed 1894, Part Revised 1931 - 32)

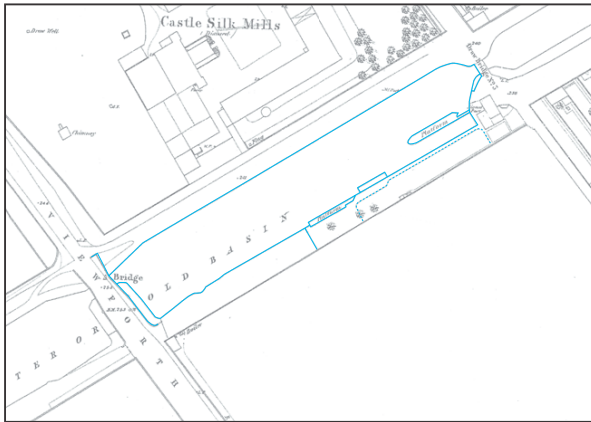
Douglas, G.J. 2000 *Lochrin Basin, Edinburgh*. Unpublished report for British Waterways.
Douglas, J. 1999 'Union Canal, Edinburgh' in *Discovery and Excavation in Scotland 1999*, 42.
Lindsay, J. 1968 *The Canals of Scotland*. David R. Charles, Newton Abbot.
Connolly, R and Holden, T. 2001. *Lochrin Basin/Edinburgh Quay, Fountainbridge: Archaeological Evaluation*. Headland Archaeology Report (unpublished)

a. APPENDIX 2: Archive drawings



British Waterways Scotland , Glasgow. Source 1921 Un-attributed.

1853



1877



1896



All maps shown at scale 1:2000



1914



1931



1949

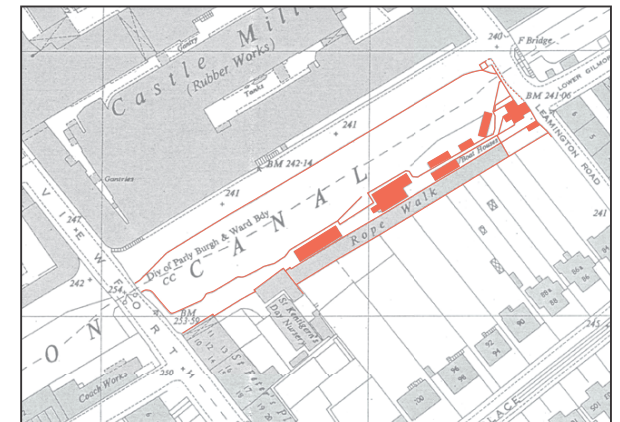


Fig. 1 : Leamington Wharf, Map progression 1853 - 1949.

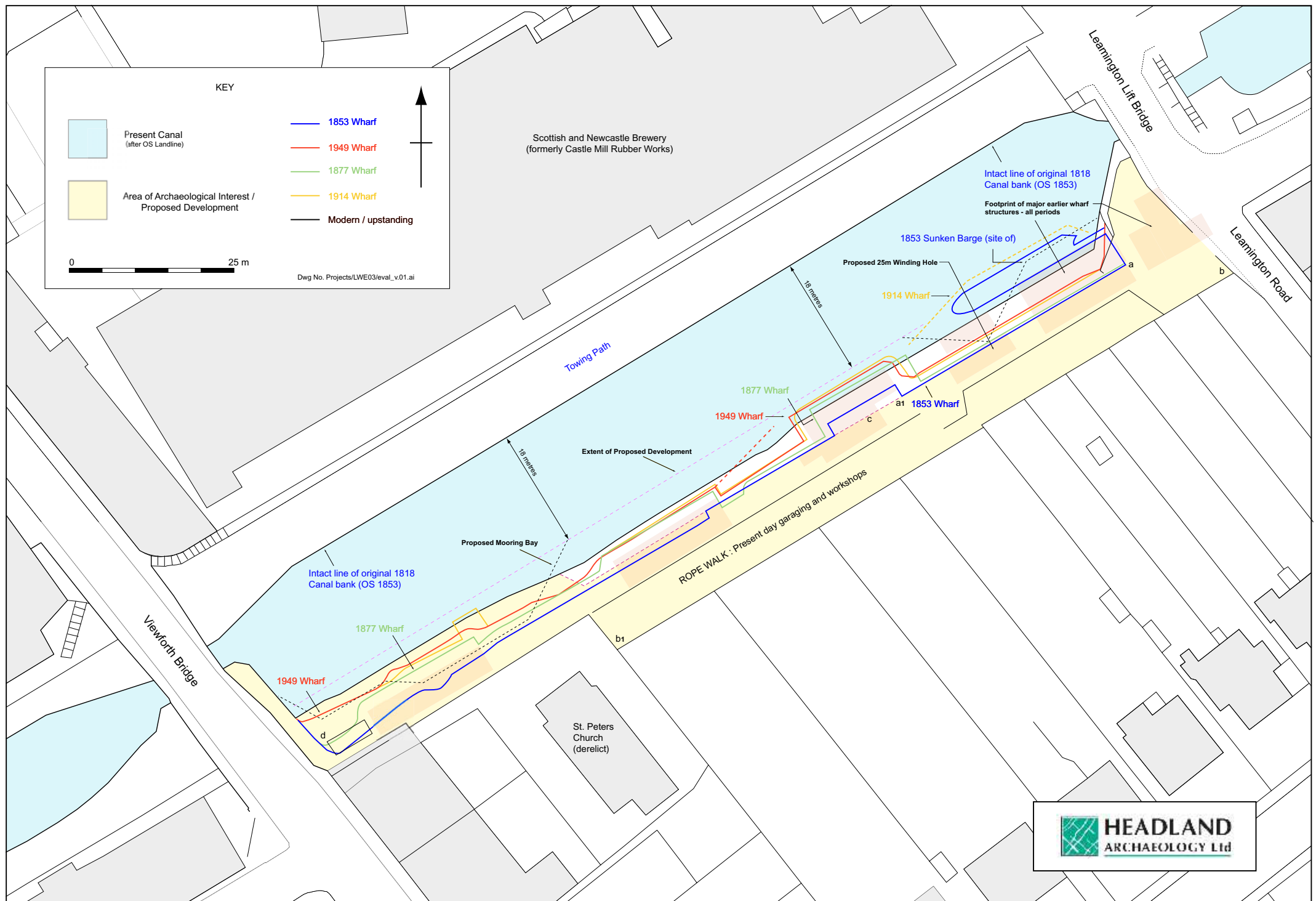


Fig 2 : Leamington Wharf : Plan showing the development of the wharf frontage from 1818 to the present day.