

June 2016

**Troon Harbour: Archaeological Assessment
 Timber Yard, Biomass Boiler with CHP**

Prepared for:



Adam Wilson & Sons Ltd
 Harbour Road
 Troon
 South Ayrshire
 KA10 6DG

Contents Amendment Record

This report has been issued and amended as follows:

Revision	Description	Date	Signed
O1	Troon Harbour: Archaeological Assessment	08.06.16	
1.0	Name of report	Date checked	Signature GLC



Mabbett & Associates Ltd, Corporate and Registered Office:
 Mabbett House, 11 Sandyford Place, Glasgow, U.K. G3 7NB
 Registered in Scotland No: SC 163378
 Info@mabbett.eu www.mabbett.eu
 Belfast | Cardiff | Glasgow | Liverpool | Rosyth

Executive Summary

An Archaeological Assessment was commissioned as part of the proposals to construct a Biomass Plant at Troon Harbour on the site of the Ailsa Craig shipyard. This Archaeological Assessment examines the history and archaeology of the proposed development site, providing conclusions as to the likelihood of important archaeological deposits existing and recommendations as to the need for any further archaeological mitigation should the application be granted planning permission.

The Assessment has been undertaken in cognizance of all archaeological, cultural heritage and historic environment legislation, while following accepted archaeological practice and standards. In line with recommendations, consultation has been sought from relevant bodies.

The methodology for the creation of the baseline was clear, comprehensive and multi-faceted. This involved a Desk Based Assessment which accessed all readily available databases, aerial images, historic maps and documentary sources, supplemented by a site visit and the excavation of Trial Pits under direct archaeological supervision.

The analysis of the sources revealed no record of occupation within the development area pre-dating the construction of Troon Harbour in 1808. While the potential of the natural harbour formed by the Troon peninsula had long been recognised, this wasn't fully exploited until 1808. The development of the modern town of Troon owes itself to the creation of the harbour. Map evidence shows Troon to be agricultural and dotted with small farming settlements.

Troon Harbour is a significant part of Scotland's early industrialisation and as such large parts are protected as Category B Listed. However, the Harbour has remained in use for the last two hundred years, and as such continued to develop, modernise and re-model. The map regression shows that between 1860 and 1896 large scale reconstruction of the proposed development site took place – a process that has continued to the present day.

Archaeological monitoring of Trial Pits confirmed the evidence collated in the Desk Based Assessment, revealing large deposits of made ground, some containing late 20th century rubbish at depth and showing extensive re-working of the proposed development area.

This continued use, demolition and construction on the proposed development site will have severely compromised or removed any traces of the early harbour buildings and fittings. As such ARCHAS Cultural Heritage Ltd consider the archaeological potential of the site to be low. It is recommended that no further archaeological mitigation is required should the development be granted planning permission.

Table of Contents

Section 1.0	Introduction	5
1.1	Aim of this Report	5
Section 2.0	Brief Project Description	6
2.1	Project Overview	6
2.2	The Location	6
2.3	Design	6
2.4	Construction	6
Section 3.0	Overview of Planning Policy	9
3.1	General	9
3.2	Legislation	9
3.3	Planning Policy	9
3.3.1	National Policy	9
3.3.2	Regional and Local Policy	10
3.4	Guidance	10
3.5	Consultation	10
Section 4.0	Methods	12
4.1	Desk Based Study	12
4.2	Site Visit	12
4.3	Monitoring of Excavations – Test Pits	12
4.4	Critique of the study	12
Section 5.0	Baseline	14
5.1	Study Area – Site Visit	14
5.2	General Historical Background	15
5.2.1	General	15
5.2.2	Statutory Legislation	15
5.2.3	Prehistoric	15
5.2.4	Roman	15
5.2.5	Medieval	15
5.2.6	Post-Medieval	15
5.3	Map Regression	16
5.3.1	General	16
5.3.2	Pre-Ordnance Survey Maps	16
5.3.3	Ordnance Survey Maps	19
5.4	Aerial Images	22
5.4.1	1946	22
5.4.2	31/12/99 - Google	22
5.4.3	31/12/04 – Google	22
5.4.4	28/01/05 – Google	22
5.5	Monitoring of Excavations – Test Pits	22
5.5.1	General	22
5.5.2	Watching Brief	22
5.5.3	Results	23

5.5.4 Summary	27
5.6 Continued Use of the Site	27
Section 6.0 Conclusions and Recommendation (to include any commitments for inclusion as planning consents)	28
6.1 Summary	28
6.2 Conclusions	28
6.3 Statement of Archaeological potential	28
6.4 Recommendations	28
Section 7.0 Bibliography	30
7.1 Aerial Images	30
7.2 Cartographic Resources	30
7.3 Documentary Resources	31
7.4 Websites	31
Section 8.0 Appendices – Context Register	32

Section 1.0 Introduction

The proposed development site is situated at Troon Harbour, in South Ayrshire (NGR NS309314) (Figure 1). It is located within a light industrial facility containing a working port and mixed industrial and commercial uses and will be located in the area marked as a timber mill.

The timber mill is split across two sites, separated by a public road running between them. The location of the proposed biomass site is to the North, next to the inner harbour area on the site of the old Ailsa Craig Building.

The facility will be based on the site of the old Ailsa Craig building. The site covers around 0.55 ha (including storage and ash containers). The development is consequently on the boundary of being considered a Schedule 2 development under the EIA Regulations (Schedule 2, part 3a). As such, the characteristics and significance of any associated potential environmental impacts, as well as the characteristics and location of the development, have to be assessed to inform any decision as to whether the development should be subject to a full Environmental Impact Assessment (EIA), with reference to Schedule 3 of the EIA Regulations.

The Site owned by Glennon Brothers, an Irish based timber business which took over Adam & Wilson Sons Ltd in 2008. The company has been investigating the installation of a biomass boiler and combined heat and power system for kiln heating at this facility.

As the biomass plant will be an industrial installation for the production of electricity, thermal oil and hot water, where the area of the development exceeds 0.5 hectare, it will be considered a schedule 2 EIA development under the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 (hereafter referred to as the EIA regulations), Schedule 2, part 3a.

A screening report submitted Friday May 13th concluded that the Development should not be subject to the EIA regulations, however a number of reports should inform the planning application. This report satisfies the requirement to inform the planning application with regards to any potential effects on the Historic Environment and any management needs to limit these effects to the minimum extent that is practicable.

1.1 Aim of this Report

Troon Harbour is an important historical site with the potential to contain evidence of early industrial archaeology. This report is designed to analyse the history and archaeology of the proposed development site. It aims to outline the proposed chronology of the proposed development site and the likelihood of archaeological deposits surviving which relate to or even pre-date the earliest harbour construction.

The report will reach clear conclusions as to the likelihood of significant archaeological features surviving on site which will be delivered through a 'Statement of Archaeological Potential'. The Conclusions will provide clear recommendations as to the requirement for any further archaeological work associated with the proposed development.

This report contains historic maps, reproduced by permission of the Trustees of the National Library of Scotland (NLS). To view these maps online, see <http://www.nls.uk>.

Section 2.0 Brief Project Description

2.1 Project Overview

The plant will be located on the north eastern portion of the Glennon Brothers site at Grid Reference NS309314 (Figure 1). It is assumed that the biomass plant will be in the order of 10MW facility and will be built on the footprint identified in Figure 2.

2.2 The Location

The potential site measures approximately 0.55ha in area (Figure 2: Blue Line) and is roughly centred at grid reference NS309314, toward the most western point of Troon. The timber yard on which the facility is to be sited is split into two parts separated by a public road, the B749 known as the Harbour Road. The site on which the development is to be located is on the north eastern side of the Harbour bordering the inner harbour (Figure 2: Red Line) and is approximately 0.55 Ha in size.

The wider timber yard site is bordered by: the sub branch of the Ayrshire coastal path along its western and southern flank, and then the coast and Troon Marina, on the eastern part of its northern boundary; and Troon Harbour buildings, to the north and northwest. There are residential properties to the south west of the site, as well as a few residential units to the south-west.

The main access routes to the site are from the B749, which cuts through the southern part of Troon as South Beach and then Craigend Road, Southwood Road and finally Monktonhill Road before joining the A79. Alternative road access runs through the north of Troon, along the B746 Kilmarnock Road which then joins the A759 and then A78.

The site can also be easily accessed from the sea via Troon Harbour.

2.3 Design

The proposed plant is a conventional 10 MW biomass boiler and combined heat and power plant. It is envisioned that the plant would be fed by utilizing the lower grade co-product produced at the site, in the form of the but-chip, bark and sawdust fed by a chain conveyor system. The combustion process, inputs and output are shown in Figure 3.

The plant will consist of a biomass storage yard with a large combustion chamber, which emits flue gases to the atmosphere via a fuel gas scrubber. It will also contain a high-pressure boiler which will vent high pressure stream to a turbine. The feedstock for the plant will be sourced entirely within the facility. All ash will be recycled as fertilizer, where possible.

Venting of the facility will be via a single stack. Details of the proposed stack height have been calculated through the production of a detailed air quality modelling exercise and is recommended as being 30m.

2.4 Construction

The ground is presently cleared and there are no buildings within the development footprint. Construction activities will include: Ground breaking, to emplace foundations; and limited piling works, to emplace foundations, specifically for the proposed stack. Construction of the facility, boiler house and stack as well as ancillary buildings.

Insert two blank pages for figure 1 and 2

Section 3.0 Overview of Planning Policy

3.1 General

This chapter was prepared with reference to all relevant statutory and planning frameworks for the Historic Environment.

The United Kingdom Government adheres to the European Convention on the Protection of the Archaeological Heritage (Revised) known as the ‘Valetta Convention’. Article 2 requires that States who are signatories of the Convention must institute “a legal system for the protection of the archaeological heritage” (European Union, 1992). Article 4 requires a provision for the “the conservation and maintenance of the archaeological heritage, preferably in situ” (European Union, 1992).

In Scotland, primary planning guidance comprises National Planning Framework for Scotland 3 (NFP3); Scottish Historic Environment Policy (SHEP4); Scottish Planning Policy (SPP, 2014) and Planning Advice Note 2/2011 (PAN2) at national level and the South Ayrshire Local Development Plan at Regional and Local Level.

3.2 Legislation

Relevant legislation and guidance documents have been reviewed and considered as part of this Historic Environment assessment. Of particular relevance are:

- Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997;
- Ancient Monuments and Archaeological Areas Act;
- Town and Country Planning (Scotland) Act 1997;
- Planning etc. (Scotland) Act 1979;
- Protection of Wrecks Act 1973; and
- Protection of Military Remains Act 1986.

Relevant Historic Environment assets that are protected by statutory legislation include:

- Scheduled Monuments;
- Listed Buildings; and
- Conservation Areas.

3.3 Planning Policy

The policies outlined below include those from the South Ayrshire Local Development Plan (2014) as well as the relevant aspects of Scottish Planning Policy (SPP), Planning Advice Notes and other relevant guidance. Of relevance to the Historic Environment assessment presented within this report, attention has been paid to the following policies:

3.3.1 National Policy

- National Planning Framework for Scotland (NPF3) (2014) is intended to guide Scotland’s development to 2030, setting out strategic development priorities to support the Scottish Government in order to create ‘sustainable economic growth’ (The Scottish Government, 2014). The Framework provides strategic spatial policy context for decisions and actions by the Government and its agencies; planning authorities are required to take the framework into account when preparing development plans, and it is a material consideration in the determination of planning applications (The Scottish Government, 2014).
- One of the main elements of the spatial strategy set out in NPF3 (2014) is to “conserve and enhance Scotland’s distinctive natural and cultural heritage, and continue to safeguard internationally protected

sites” (The Scottish Government, 2014). The Scottish Government is committed to supporting “the conservation and promotion of the historic environment as an irreplaceable resource, a reflection of Scotland’s cultural identity and a key feature of its appeal as a tourist destination” (The Scottish Government, 2014).

- Scottish Historic Environment Policy (SHEP) (2011) sets out The Scottish Government’s policies for the Historic Environment, providing policy direction for Historic Environment Scotland and a framework informing a range of organisations that have a role in managing Scotland’s Historic Environment. Through the implementation of SHEP, Scottish Ministers wish to ensure that the people of Scotland, and visitors to our country, value, understand and enjoy the Historic Environment.
- Scottish Planning Policy (SPP) (2014) provides a framework for the protection, conservation and enhancement of the Historic Environment and its setting. The framework establishes (number 33) that the planning system should “promote the care and protection of the designated and non-designated historic environment” whilst enabling “positive change in the historic environment which is informed by a clear understanding of the importance of the heritage assets affected” (The Scottish Government, 2014). Historic Environment resources include statutory and non-statutory designations, as defined in SPP.
- Planning Advice Note (PAN) 2/2011 advises that, in determining planning applications, planning authorities should take into account the relative importance of archaeological sites. It also notes that in determining planning applications that may impact archaeological features or their setting, planning authorities may have to balance the benefits of development against the importance of archaeological features. The desirability to preserve a monument (whether Scheduled or otherwise) is a material consideration and the objective should be able to ensure the protection and enhancement of monuments by preservation *in situ*, or in an appropriate setting. When preservation *in situ* is not possible, recording and/or excavation followed by analysis and publication of results may be an acceptable alternative.

3.3.2 Regional and Local Policy

South Ayrshire Local Development Plan (LDP) (2014) is the main policy document used to determine planning applications. Relevant policies from the LDP considered for this chapter include:

- - LDP Policy: Historic Environment ensures the Council are committed to considering the effect of development on the Historic Environment. No development will be supported which can be shown to have a negative impact upon Listed Buildings, Conservation Areas, Scheduled Monuments or Gardens and Designed Landscapes.
- - LDP Policy: Archaeology stipulates that the West of Scotland Archaeology Service (WoSAS) will be consulted in order to understand the implications of development on archaeological sites. Development which adversely affects archaeological sites will only be allowed to proceed if it can be shown the benefits of the proposals outweigh the archaeological value of the site.

□

3.4 Guidance

Recognition has been taken of the following best practice guidelines and guidance:

- ☒ Chartered Institute for Archaeologists (CIfA) Code of Conduct (CIfA, 2014);
- ☒ Standard and Guidance for Historic Environment Desk-based Assessment (CIfA, 2014); and

3.5 Consultation

Scoping and consultation was sought from relevant authorities and organisations.

The West of Scotland Archaeology Service (WoSAS) provide archaeological advice to South Ayrshire Council in all archaeological matters relating to planning. The WoSAS response is outlined in Table 1.

Table 1: Summary of Scoping and Consultation Responses for the Historic Environment

Consultee	Detail and Response	Comment
West of Scotland Archaeology Service (WoSAS)	<p>WoSAS were consulted for a response to the proposals on 01/06/16.</p> <p>The WoSAS response of 02/06/16 highlighted the importance of the early history of the shipyard and its development over time, but understood that later development on the site is likely to have compromised both this and any earlier archaeological remains.</p> <p>WoSAS state that 'it appears unlikely to raise a particular archaeological issue'.</p>	<p>It is anticipated that this Historic Environment Technical Report and the conclusions and recommendations therein will satisfy WoSAS that the correct archaeological and Historic Environment procedures have been followed.</p>

Section 4.0 Methods

4.1 Desk Based Assessment

The aim of the Desk Based Assessment is to assess the recorded history of the proposed development area in order to better appreciate the likely presence of any archaeological deposits on site; the importance of such deposits; and the likelihood of these surviving intact and undamaged from subsequent development.

The history of the wider Troon area is also addressed. In addition, known sites within a wider study area of up to 5km were analysed to provide a context to the history of the proposed development and provide context to the likelihood of undiscovered archaeological remains being present in the proposed development site.

To facilitate this study, a number of different sources were consulted:

□

- The South Ayrshire Council Sites and Monuments Record (SMR) as maintained by WoSAS provides a comprehensive list of all sites as recorded within the Council boundaries.
- The National Monuments Record of Scotland (hereafter NMRS) as maintained by Historic Environment Scotland (hereafter HES) provided information as to the character and condition of the Historic Environment assets. The NMRS contains details on more than 300,000 Historic Environment sites.
- HES databases of designated Historic Environment assets including Listed Buildings, Scheduled Monuments (and monuments proposed for scheduling), Conservation Areas, the Inventory of Gardens and Designed Landscapes and the Inventory of Battlefields.
- Vertical aerial photographic coverage provided by online platforms.
- Maps as held by the Map Library of the National Library of Scotland (NLS) were consulted including both early, pre-Ordnance Survey (OS) maps and superseded Ordnance Survey maps. A list of maps consulted can be viewed in Section 7.0.
- Bibliographic references were assessed, in particular the Old and New Statistical Accounts and the Ordnance Gazetteer of Scotland.

4.2 Site Visit

A visual inspection, or walkover of the site was completed on 19th May 2016. The site visit allowed the archaeological consultants to become familiar with the site, assess the likelihood of potential issues and compile a comprehensive photographic record of the development area and the surrounding Historic Environment assets.

4.3 Monitoring of Excavations – Test Pits

As part of the preliminary planning work, a series of test pits were excavated across the footprint of the proposed development. Excavation of these was monitored under watching brief conditions according to the standards and guidance as accepted by the Chartered Institute of Archaeologists and standard ARCHAS Cultural Heritage Ltd operating procedures.

While severely limited in scope, these keyhole investigations provide a firm understanding as to the make-up of the site and the likelihood for significant archaeological deposits to survive undisturbed.

4.4 Critique of the study

The methodology outlined for the Desk Based Study is comprehensive, accessing all readily available documentary, photographic and cartographic sources to provide a detailed chronology of the proposed development area. Extending the assessment into the wider study area also allows the proposed

development site to be placed into a wider chronology and allows the likelihood of undiscovered archaeological features surviving to be discussed.

The Desk Based Study is complimented by a Visual Inspection of the site and a series of small keyhole excavations in the form of archaeologically monitored Trial Pits. These Trial Pits are limited in scope, but provide an insight into the nature and depth of the deposits underlying the proposed development area.

The weaknesses of such a study are that it is never possible to say definitively what archaeological features or deposits are located on, or survive across, a site regardless of the level of investigation undertaken prior to development. However, the multi-faceted nature of this assessment provides the strongest possible indication as to the likelihood of significant archaeological deposits existing.

Section 5.0 Baseline

5.1 Study Area – Site Visit

The site visit allowed a detailed photographic record of the proposed development area to be collated. This record acts as a control for the site prior to development (Plate 1 - Plate 3).



Plate 1: Graving Dock to north of proposed development area



Plate 2: Looking south across the proposed development area



Plate 3: Looking west across the proposed development area

The site today is a work and storage yard for the Gannon Brothers timber facility which borders the site along its SW side. It is uneven underfoot, surfaced with a mixture of concrete, tarmac, hardcore and vegetation.

The area is somewhat uneven, with a large sunken area with a concrete base likely indicating the placement of a now demolished building.

5.2 General Historical Background

5.2.1 General

The proposed development site is located on a prominent natural peninsula, subsequently modified but providing a good natural harbour for shipping. As such it would be anticipated that such a site would have a long history of occupation or development. However, it is clear the site has been significantly modified in the modern period and it is difficult to appreciate the peninsula and proposed development site as it would have been prior to this.

Archaeological and historical records have been assessed for the surrounding area in order to provide an indication as to settlement of the Troon area in the past.

5.2.2 Statutory Legislation

Much of Troon Harbour is protected as a Category B Listed Building (LB45262) through the Planning (Listed Buildings and Conservations Areas) (Scotland) Act 1997, although the proposed development will not require Listed Building consent under present plans.

5.2.3 Prehistoric

A flint scraper (NMRS Canmore ID: 42000, WoSAS Pin 6571) was recovered from within a concentration of unworked flint on the southern coast of the peninsula to the south west of the proposed development area (NGR: NS 31600 30600). The scraper has attributes characteristic of a Palaeolithic date.

The location of the scraper on the coast, along with much unworked flint, makes it likely that the blade was brought to site as gravel ballast in the hold of a ship.

There is further, more direct evidence of prehistoric occupation in the vicinity of Troon itself. A flint scatter was recorded around 3.5km to the east (NGR: NS 34600 31300) in the 1970s and dated to the Mesolithic period (NMRS Canmore ID: 41993, WoSAS Pin 6564).

Further occupation was evidenced by archaeological work completed from 2008-2012 to the NW (NGR: NS 33800 32700 and NS 33791 32589). These, likely connected sites, were discovered during archaeological evaluation and contain three possible roundhouses, ditches, hearths, pit alignments and pottery (NMRS Canmore ID: 300662 & 339465, WoSAS Pin 61708 & 4871).

5.2.4 Roman

A slightly worn Dupondius coin depicting the Emperor Nero (NMRS Canmore ID: 41995 WoSAS Pin 6566) was reported to have been discovered in the rear garden of a property on Wellbeck Crescent (NGR: NS 31510 30810). The provenance of this discovery is uncertain.

5.2.5 Medieval

In the medieval period the lands around Troon were owned by the Fullarton family with their seat at Crosbie Castle.

5.2.6 Post-Medieval

The natural benefits of Troon as a harbour were long recognised and in the Statistical Account of 1791-99 it is recorded that it 'might be made an excellent harbour'¹. The Account goes on to state that near a century prior to the compilation of the Account, merchants of Glasgow 'made an offer to the proprietor of feuing the lands adjoining to it'² but that their offer was rejected and Port Glasgow was developed instead.

¹ Duncan, R 'Parish of Dundonald' in The Statistical Account of Scotland, County of Ayr. Account of 1791-99, Volume 7, 623

² *Ibid.*

The original charter for the harbour was obtained from Queen Anne in 1707 by William Fullarton, but it was not until 1808 when the Duke of Portland began the construction of the harbour.³ The Statistical Account of 1834-45 describes that when penned in 1841, a 'wet dock is in the course of excavation' while two dry docks are already in place.⁴ The harbour in this period was chiefly concerned with the trade of coal and timber.

Following the Duke of Portland's work further enhancements were made to the harbour complex with a breakwater added following the storms of 1839. Three lighthouses were also erected, one at the inner end of the pier in 1827; another built at the pierhead in 1848 and a third on the south breakwater in 1889. The Ordnance Gazetteer of Scotland from 1896 records that two new graving docks were under construction at the time the record was compiled.⁵

The new harbour was connected in 1808 to the coal pits of Kilmarnock by the Kilmarnock and Troon Railway, a horse drawn railway system. In 1817 a primitive Stephenson Engine was trialled on the route – the first use of a steam locomotive in Scotland.⁶

In the first half of the 18th century the Fullarton family built an 'elegant octagonal temple'⁷ or folly on the Troon peninsula. It is from this monument that the 'Templehill' part of Troon gets its name.

In The 18th century the Troon area was known as a centre of smuggling originating in the Isle of Man.⁸ The development of the town is mainly as a result of the harbour works carried out in the early 19th century.

5.3 Map Regression

5.3.1 General

All relevant available maps as held by NLS were consulted in order to identify the recorded development of the site as well as any additional features that may previously have gone unrecorded within the site boundary. A summary of consulted maps is listed in the Bibliography.

5.3.2 Pre-Ordnance Survey Maps

The earliest maps of Scotland to show any level of detail on a more regional level were produced by Timothy Pont who lived from the 1560s until around 1615. It is known that Pont produced a map which covers the Troon area, although unfortunately this manuscript does not survive.

However in the early to mid-17th century the importance of Pont's work was recognised and the Dutchman Joan Blaeu used Pont's existing maps as the basis for his *Atlas Novus*, published in 1654. Blaeu engraved reproductions of the surviving Pont manuscripts and engaged Robert Gordon of Straloch to re-work seven of the Pont maps which had become illegible, while producing three more maps to ensure complete coverage of Scotland.⁹ Thus it is clear that these 17th century manuscripts retain 16th century information.

Maps drawn by both Gordon and Blaeu survive. Robert Gordon's map 'Cunningham' is dated to between 1636 and 1652. It shows a prominent two pronged natural headland upon which Troon Harbour is now based. There is no depiction of settlement or occupation either on the headland, or in the immediate inshore area where the town of Troon is today.

Joan Blaeu's 'The Province of Kyle' acknowledges the work of Timothy Pont and shows the same geography, with the large two-pronged headland. The northernmost prong is called 'The Truyn' (Figure 1).

³ Willison, A, Fleming, J and Wilson, D. 'Parish of Dundonald' in The Statistical Account of Scotland, County of Ayr. Account of 1834-45, Volume 5, 684

⁴ *Ibid.*

⁵ Groome, F. H. 1896 Ordnance Gazetteer of Scotland, London, 451

⁶ Smith, R 2001 The Making of Scotland: A Comprehensive Guide to the Growth of Scotland's Cities, Towns and Villages, 909

⁷ Duncan, R., 624

⁸ *Ibid.* 625

⁹ Fleet C., Wilkes M. & Withers, C. 2011 *Scotland – Mapping the Nation*, 63

This name derives from the Gaelic *An t-Sron* which means 'The Nose'.¹⁰ It is from this peninsula that the modern town of Troon gained its name.



Figure 1: Extract from Joan Blaeu's 'The Province of Kyle' from 1654 showing the 'Truyn' peninsula. NLS

John Adair's 'Mape of the west of Scotland containing Clydsdail, Nithsdail, Ranfrew, Shyre of Ayre & Galloway' from 1685 continues to show no significant settlement in and around modern day Troon. The prominent peninsula has lost its southern arm, perhaps indicating this was more of an insubstantial sand spit. Now curving to the north in appearance of a natural harbour, this headland is now labelled 'Troun'.

William Roy's 'Military Survey of Scotland' conducted between 1747 and 1755 (Figure 2) provides much greater detail than shown on earlier maps. Roy's work revolutionised map making in Scotland, containing a lot more terrain detail than previously shown. Although the map was the result of 'rapid reconnaissance rather than a measured topographic survey', the various inaccuracies can be forgiven in providing us with the first cartographic view of Scotland with any level of detail – a snapshot of mid-18th century Scotland.

Roy's depiction of the proposed development site and the Troon area shows a site marked as 'Temple' midway along the peninsula. The area to the east comprises agricultural land marked by a series of field systems and small farming settlements. The western end of the peninsula is undeveloped with the mapping style giving an indication of marshland.



Figure 2: Extract from William Roy's Military Survey of Scotland showing 'Troon Point' with the site marked 'Temple'. © The British Library Board. All Rights Reserved (Roy Military Survey of Scotland)

¹⁰ Smith, R, 909

John Ainslie's 'Map of the Southern Part of Scotland' from 1821 shows a road running along the headland to the north of the 'Temple', with a depiction towards the end of the headland marked as 'Harbour'.

By 1828, this harbour has either become more clearly developed, or the scale of John Thomson's 'The Northern Part of Ayrshire, Southern Part' is such that more detail is shown (Figure 3). The map shows substantial work has been done to the peninsula to create a long narrow harbour, with an inner area marked as 'Wet Dock'.



Figure 3: Detail of John Thomson's 'The Northern Part of Ayrshire, Southern Part' from 1828. Note the 'harbour' and 'wet dock' on the peninsula

The Hydrographic Office of the Admiralty completed a detailed survey of Troon Harbour in 1847 (Figure 4). This shows the extensive development of Troon Harbour in excellent detail. While this was indicated to some degree in Ainslie's map of 1828, the Admiralty survey shows the extensive changes on the Troon headland in the roughly 100 years since William Roy's map was produced.

The structure of the harbour is essentially as it appears today, with an Inner and Outer Harbour separated by a cross wall with a 'drawbridge'. A 'basin' has also been constructed while the proposed development area is clearly depicted in some detail between the two dry docks, each with a 'slip' either side. This is marked as 'Ship Building Yard' and dotted with a series of small buildings serviced by the Kilmarnock and Troon Branch Railway.

The peninsula as a whole is largely undeveloped. The 'Temple' shown on previous maps is gone, replaced by a crescent of houses on what is now Templehill.



Figure 4: 'Troon Harbour' by the Admiralty Hydrographic Office from 1847 with the proposed development area shown in detail and indicated red. ARCHAS after NLS

5.3.3 Ordnance Survey Maps

The Ordnance Survey began their survey of the Troon area in 1857, producing their first map of the area in 1860. The most detailed maps produced in this 1st edition of the survey are the 25 inch to 1 mile maps which provide an even more detailed view of the proposed development area than that offered by the Admiralty Hydrographic Office in 1847.

Frustratingly, the Troon peninsula and Harbour is covered in the 25 inch to 1 mile series by three different map sheets, two of which cross the development area. However, the 1st edition published in 1860, and subsequent editions from 1896 and 1909 neatly chart the development of the harbour and the proposed development area. The less detailed 6 inch to 1 mile maps of 1938-47 extend the map chronology further.

The 1st edition Ayr Sheet XXII.13 and XXI.16 from 1860 (Figure 5) shows little change from the survey of 1847 (Figure 4). The Ship Building Yard has changed little, with one length of buildings along the railway line and four further free standing structures of various sizes within the area defined by the two graving docks.

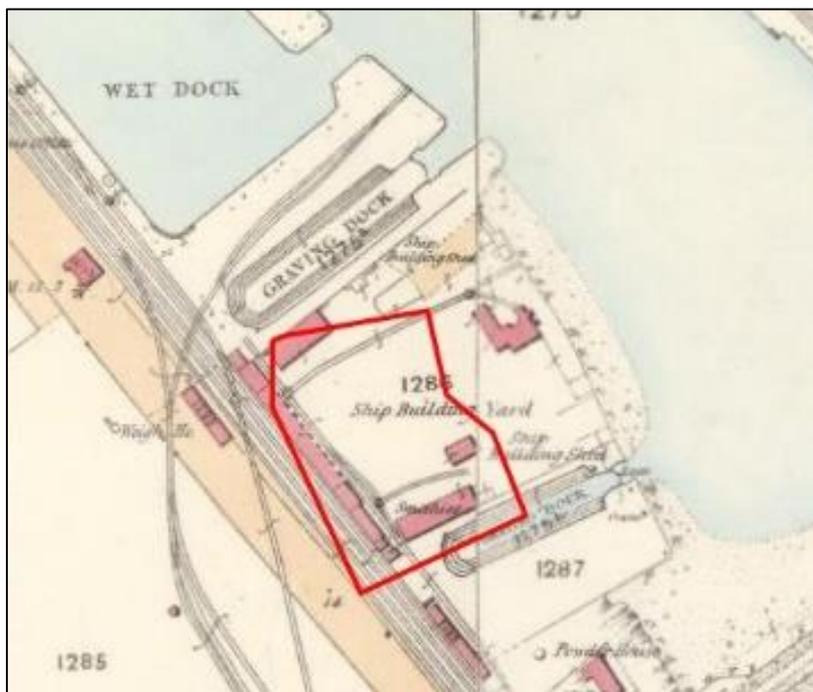


Figure 5: Detail of the 25 inch to 1 mile composite Ayr Sheet XXII.13 and XXI.16 from 1860 with the proposed development area superimposed in red. NLS

Superimposing the proposed development area onto the 1860 maps (Figure 4) shows the railway tracks running into the site along its west side as well as some possible branches off into the yard itself. In addition, many of the linear terrace of buildings bordering the railway is also shown within the development area, while three of the four buildings of the ship building yard will also be partly, or wholly covered by the development. The graving dock at the southern end of the site also has potential to be impacted by development.

By 1896 the Shipbuilding Yard and the proposed development area have changed significantly, clearly becoming larger, more substantial and organised (Figure 6). There has been a notable re-alignment of the railway network serving the Harbour, which is now much more expansive and running to the west of the site, well outwith the development boundary. The harbour wall itself is also now clearly defined shown as a clear line delineating it from the sea where before a gradual shoreline was shown. The 'Slip' to the south of the 'Graving Dock' in 1860 has also gone. Only the building at the northern limits of the proposed development area, adjacent to the large 'Graving Dock' survives from 1860, with the proposed development area on the whole free from occupation.

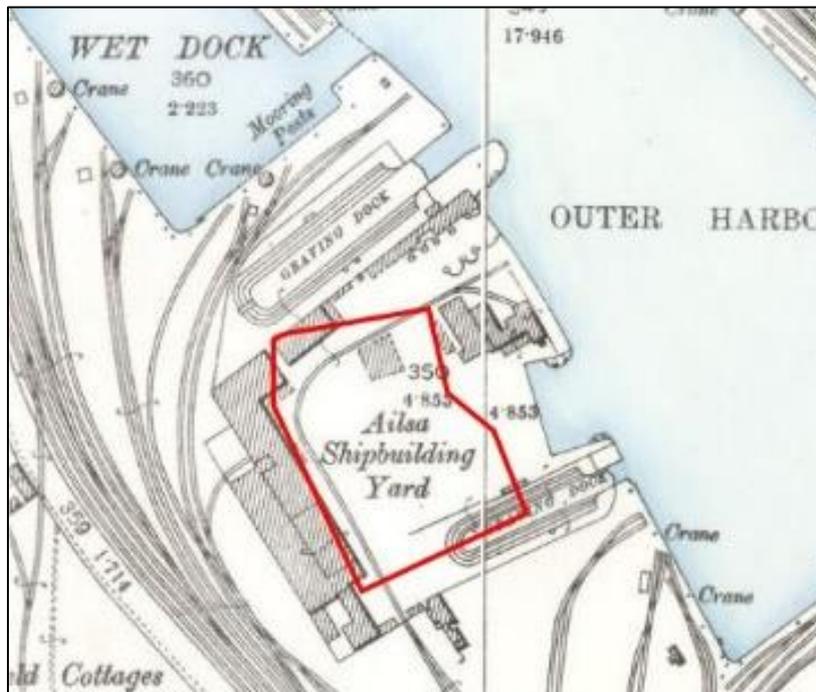


Figure 6: Detail of the 25 inch to 1 mile composite Ayrshire Sheet 021.16 and 021.13 from 1896 with the proposed development area superimposed in red. NLS

The general impression between 1860 and 1896 is of substantial change and re-alignment of the ship building yard on the harbour.

By the production of the 1909 maps, the ship building yard has undergone further substantial change, although alterations within the limits of the proposed development are confined to two possible structures represented dashed lines, but shown in the style of being roofed (Figure 7).

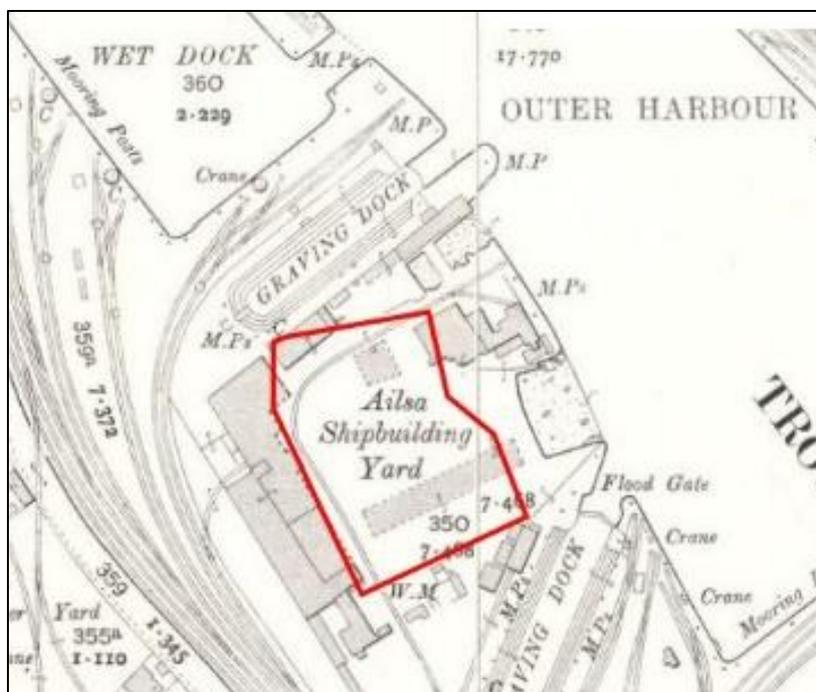


Figure 7: Detail of the 25 inch to 1 mile composite Ayrshire Sheet 021.16 and 021.13 from 1909 with the proposed development area superimposed in red. NLS

The most notable thing about the 1909 maps is outwith the development area. The southern of the two graving docks depicted on maps since 1847 has gone, with a larger dock constructed to the south and re-aligned from ENE-WSW to NNE-SSW. This is the graving dock in use to the south of the development area today.

The 6 inch to 1 mile Ayrshire Sheets XXI.SE & XXII.SW surveyed in 1938 show no further change to the site.

5.4 Aerial Images

Historic and current aerial images were accessed from readily available online platforms in order to further increase understanding of the site's development to the present day. Notable images are discussed below.

5.4.1 1946

Historic imagery from 1946 available through NLS is curious in seeming to show a more substantial Outer Harbour than hitherto recorded, but close inspection of this indicates that the image has been doctored, almost certainly due to use of the facility by the Royal Navy.

5.4.2 31/12/99 - Google

The first image from an online platform was taken by Google on 31/12/99 and is available for consultation on the Google Earth platform. This image shows the modern complex of what are today the extant Gannon Brothers buildings bordering the site along the south west side. However, these are supplemented by a large modern building protruding at right angles from the eastern side at the northern end. This building covers much of the proposed development area and is clearly marked 'Ailsa' along its roof. Between this building and the dry dock a second modern building covers the majority of the available space. This too sits within the proposed development area.

The Graving Dock to the north of the proposed development site is still clearly viable, and shown at the time of the image to be dry.

5.4.3 31/12/04 – Google

The image available from 31/12/04 appears to show the site unoccupied. The 'Ailsa' building is still intact, but the second building has been removed.

5.4.4 28/01/05 – Google

By 28/01/05 the 'Ailsa' building is in the process of demolition.

5.5 Monitoring of Excavations – Test Pits

5.5.1 General

As part of the preliminary planning of the project, a total of ten Trial Pits were excavated in and around the footprint of the proposed development for inspections associated with engineering and analysis of any contaminated land.

The Trial Pits were limited in both scale and scope, conducted in locations chosen by the site Engineer and Contaminated Land team. The depth of the trench was dependent upon the remit for the excavation. For example, in a number of Trial Pits the intention was to continue the excavation until bedrock was reached, while in others it was sufficient for the team to gain soil samples from much higher in the strata.

5.5.2 Watching Brief

The excavation of the Trial Pits in a potentially archaeologically sensitive area provided the opportunity for keyhole assessment into the makeup of the underlying deposits and an understanding of whether any significant archaeological features were likely to survive in the area.

A watching brief was maintained over two days on Wednesday 25/05/16 and Monday 30/05/16 by Ross Cameron. Trenches were initially opened by a 360°, 3 tonne mechanical excavator fitted with a narrow toothed bucket. When this proved unsuitable to tackle the rubble deposits, excavation resumed with a JCB 3CX (Plate 4). Weather conditions throughout were bright and sunny, making photography challenging.



Plate 4: Working shot looking west. Opening Trial Pits

5.5.3 Results

A description of all trenches and the key deposits and features identified in each trench is provided below. All context numbers for layers and feature fills are recorded within curved parentheses (xxx) and structural elements are recorded within curved brackets or braces brackets {xxx}. In each case the initial letter applied to a context define the trench in which it was located. For example (101) would be the first deposit recorded in Trench 1. All context numbers, feature numbers and finds numbers are recorded in bold.

The location of each Trial pit excavated can be viewed in **Error! Reference source not found.** and correlated against the historic maps in Figure 9 - Figure 11.

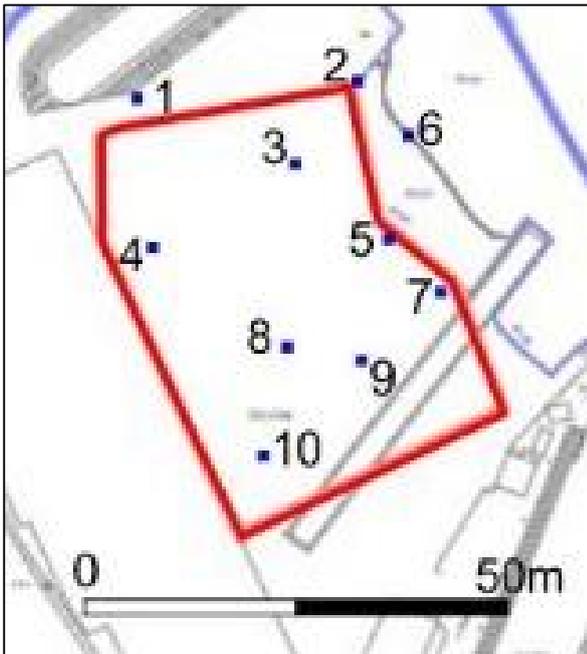


Figure 8: Locations of Trial Pits excavated at Troon Harbour shown against modern plans. ARCHAS after SKF Ltd

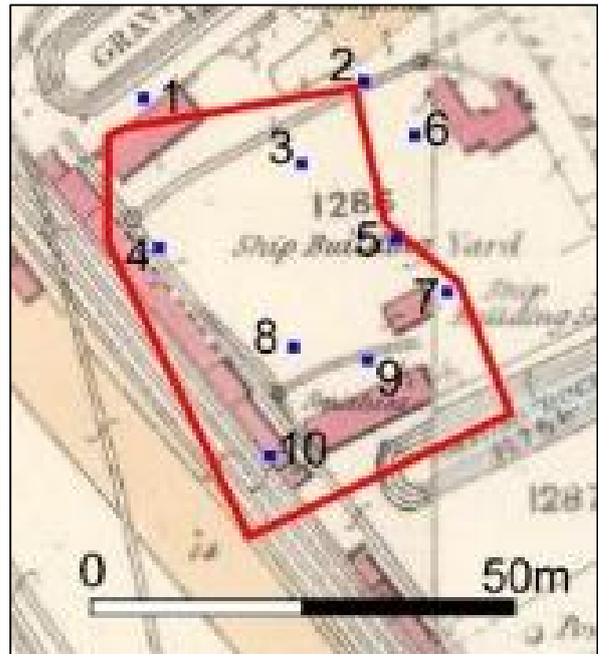


Figure 9: Locations of Trial Pits excavated as plotted against the OS maps of 1860. ARCHAS after NLS

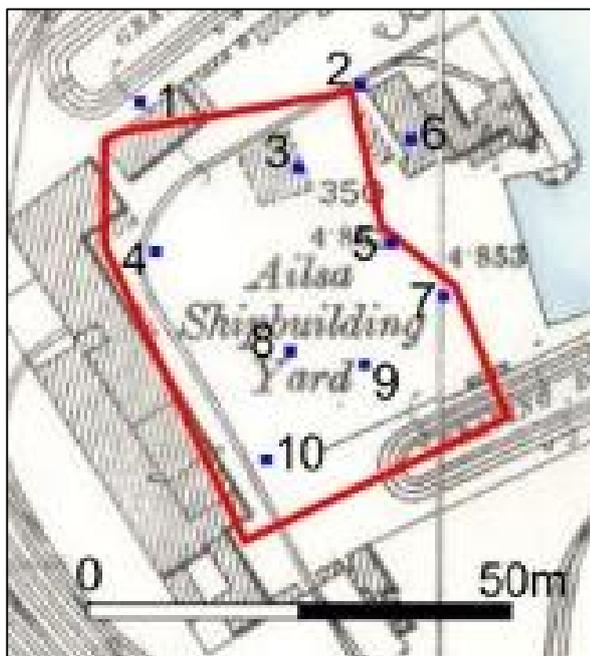


Figure 10: Locations of Trial Pits excavated as plotted against the OS maps of 1896. ARCHAS after NLS

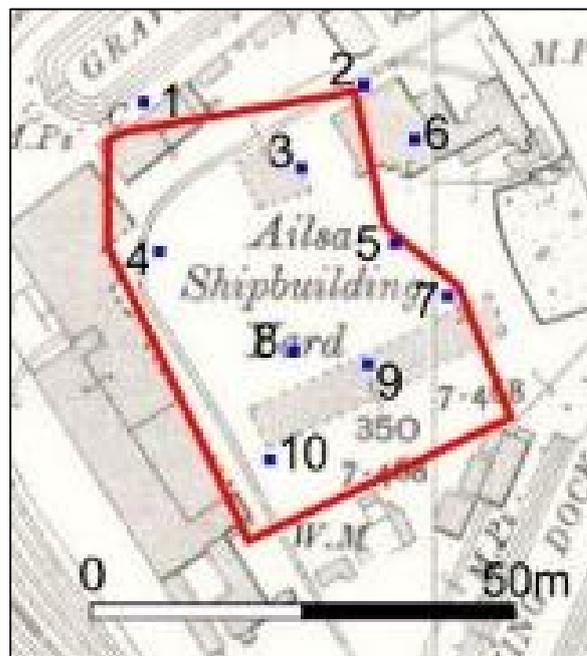


Figure 11: Locations of Trial Pits excavated as plotted against the OS maps of 1909. ARCHAS after NLS

5.5.3.1 Trial Pit 1

Trial Pit 1 was excavated immediately adjacent to the Graving Dock at the northern end of the proposed development area. The map regression showed no indication of earlier structures in this area.

The concrete upper surface (**101**) was removed by a pneumatic drill and shown to be 0.20m deep. This directly overlay the rear of the wall of the graving dock **{102}** at the NW end, which consisted of rough and undressed medium sized sandstone boulders. Across the majority of the excavation (**101**) was removed to reveal (**103**), loose to moderately compact mid brown fine grain sand.

Excavation was halted at a depth of 1.80m although extended a short distance to the SW in order to assess the continued nature of the rear of **{102}**.

No archaeological features were recorded. This excavation revealed significant deposits of made ground.

5.5.3.2 Trial Pit 2

Trial Pit 2 lay just to the north east of the proposed development area astride or directly adjacent to what appears to be a small spur from the main railway track to the west (Figure 9 - Figure 11).

Trial Pit 2 was plotted as a result of engineering considerations in order to assess the rear of a substantial wall at the northern edge of the site. The excavation intended to find the depth of this wall and whether it was grounded upon concrete.

Upper levelling deposits (**201**) revealed a concrete strip foundation 0.40m deep and 0.70m wide **{203}**. Extension of the Trial Pit to the SW revealed this to be curved, returning towards the south (Plate 5 and Plate 6). This was clearly a 20th century structure, limited in scale due to the depth of the foundations, set upon modern made ground (**202**).



Plate 5: View of Trial Pit 2 looking NE. Note {203}

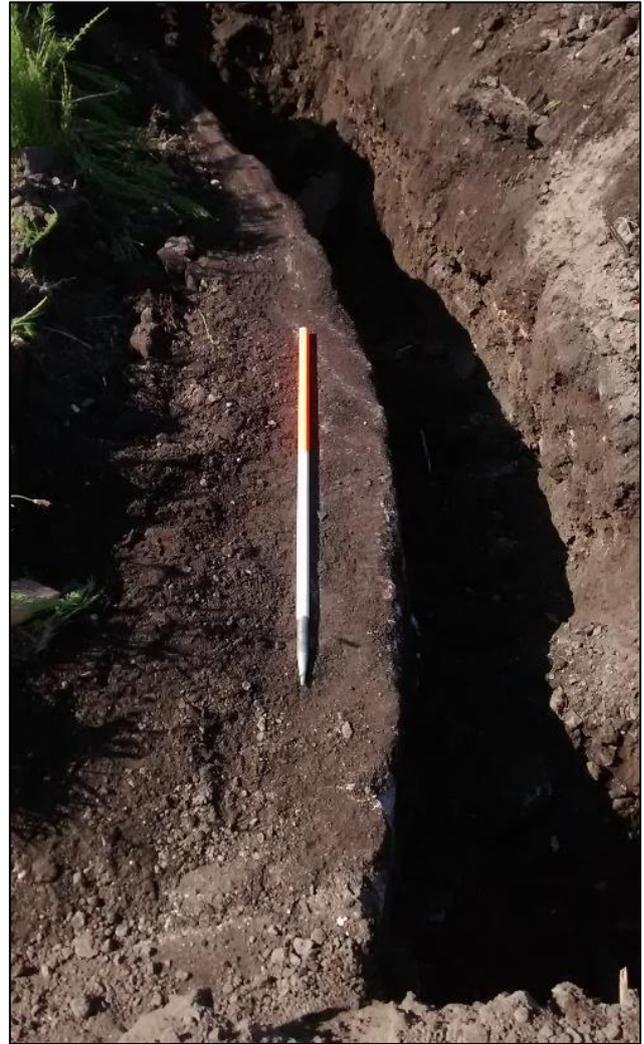


Plate 6: View of Trial Pit 2 looking SW. Note {203}

Trench 2 was terminated at 2.50m. No significant archaeological deposits were recorded with the material removed comprising made ground.

5.5.3.3 Trial Pit 3

The 1st edition map of 1860 shows no evidence of structures in the vicinity of Trial Pit 3. However, by 1896 the Trial Pit sits along the perimeter of a square structure indicated as roofed with a dashed border (Figure 10). This may indicate this was a structure open along its sides. This building is still extant in 1909.

Trial Pit 3 sits within the modern 'Ailsa' building shown on the 1999 Google aerial image.

Trial Pit 3 had a final depth of 2.40m and revealed no archaeological deposits. Various layers of made ground were recorded, with the bottom layer (**304**) containing elements of tarmac.

The excavation of the Trial pit was terminated upon **{305}**, a concrete obstruction which may have been a floor surface.

5.5.3.4 Trial Pit 4

Trial Pit 4 sits along the western edge of the proposed development. There is no indication of earlier structures in this location although railway lines are visible in all the historic OS maps, lying directly adjacent to the west.

Trial Pit 4 sits within the modern 'Ailsa' building shown on the 1999 Google aerial image.



Plate 7: Post-excitation view of {402} terminating on {405} **Plate 8: Mid-excitation view of Trial pit 4 looking N**

Excavation of Trial Pit 4 required the removal of the concrete floor surface {401}. This revealed a reinforced concrete cross wall {402}, neatly dividing the trench into two equally sized compartments. The NE of these appeared to contain thick unworked logs of timber. The SW was excavated to a depth of 2m and hardcore of small to medium angular stones. Excavation was terminated on what appeared to be a concrete floor {405}.

These substantial structural remains almost certainly relate to the 20th century 'Ailsa' building.

5.5.3.5 Trial Pit 5

There is no evidence of any historic buildings or structures in the vicinity of Trial pit 5.

Trench 5 lies within the footprint of the 'Ailsa' building.

Trench 5 was excavated to a depth of 3.80m and terminated due to water ingress. The stratigraphy of the trench was wholly made ground, with (503) in particular revealing modern detritus and plastic bottles at a depth of 2.20m.

5.5.3.6 Trial Pit 6

The 1st edition OS maps of 1860 show Trial Pit 6 set in open ground immediately south west of a large building complex on the harbour side at the north east of the shipyard (Figure 9). By the production of the 1896 OS map this building has substantially expanded to the south west, incorporating the area where Trial Pit 6 was excavated (Figure 10). Further expansion of the building by 1909 (Figure 11) continues to ensure Trial pit 6 remains within this structure.

No archaeological deposits or features were recorded in Trial Pit 6. Two deep deposits of made ground were recorded, sloping towards the water's edge. This is indicative of infilling from the landward side.

5.5.3.7 Trial Pit 7

Trial Pit 7 was excavated in an area of open ground with only a large, rectangular, open sided building built immediately to the south west by 1909 (Figure 11).

The stratigraphy of Trial Pit 7 was wholly made ground. Below the concrete surface and bedding (**701**), (**702**) comprised moderately compact mid to dark brown gritty sand. This contained occasional modern detritus fragments of brick and pottery as well as fragments of timber at depth. Trial Pit 7 was terminated at a depth of 2.3m.

5.5.3.8 Trial Pit 8

There is no evidence of any historic buildings or structures in the vicinity of Trial pit 8.

Excavation of the upper deposits (**801**) and (**802**) in Trial Pit 8 revealed a concrete floor surface {**803**} at a depth of 0.85m. This was modern and sat upon a bed of polythene. Below {**803**} two further deposits of made ground were recorded before the trench terminated at a depth of 2.1m.

5.5.3.9 Trial Pit 9

The 1st edition OS maps of 1860 show Trial Pit 9 has been dug directly adjacent to a branch of the main railway line (Figure 9). By the production of the 1909 OS maps (Figure 11), this area sits within the large rectangular, open-sided building.

Excavation through the gravel hardcore surface strata (**901**) revealed two deposits of made ground (**902**) and (**903**). At a depth of 2m work was halted as excavation disturbed a relict Pb water pipe which flooded the trench.

5.5.3.10 Trial Pit 10

Trial Pit 10 sits within an area shown on the 1st edition OS of 1860 to be the main range of buildings running along the western perimeter of the ship yard alongside the railway tracks (Figure 9). These buildings are subsequently cleared and when the site is re-modelled and re-worked, Trial Pit 10 sits in open ground.

Trial Pit 10 was the only excavation in which it could be claimed excavated below the made ground. Trench 10 had a final depth of 2.3m with hardcore bedding material (**1001**) revealing c.1m of moderately compact dark brown/black gritty silty sand with occasional fragments of modern debris (**1002**). This sat atop 0.60m of soft to moderately compact sticky slightly clay sand (**1003**), which in turn revealed silty grey sand with peaty topsoil and decayed roots (**1004**). This did not appear in situ topsoil, but is likely to be disturbed topsoil.

5.5.4 Summary

The excavation of the Trial Pits at Troon Harbour clearly demonstrated the extensive disturbance across the site, with deposits of made ground visible (almost exclusively) in every single excavation and modern debris and waste material found recovered, often at significant depths.

It is not possible to say whether archaeological deposits relating to the earliest phase of the harbour, or even features pre-dating the harbour will survive on site as none of the Trial Pits realised the bedrock or undisturbed natural subsoil. However, it is clear that the re-working of the Troon Harbour peninsula has been extensive and the occupation of the site long and complex. Numerous phases of building have been constructed and demolished, each causing huge disruption and requiring a significant degree of ground disturbance.

5.6 Continued Use of the Site

The site has been utilised for industry for over two centuries and this continues today. While the Harbour, Graving Docks and other associated features are protected by Statutory Legislation as Category B Listed, these are not fragile or at risk and are unlikely to be degraded by continual use of the site for its intended purpose.

Section 6.0 Conclusions and Recommendation (to include any commitments for inclusion as planning consents)

6.1 Summary

The history of Troon, and in particular the proposed development site, is closely tied to the existence of the headland known as 'Troon Point' and its subsequent development into a harbour in 1808. Prior to this date there was no significant occupation of the modern Troon area. There is some evidence of prehistoric occupation in the wider landscape while people were clearly exploiting the area throughout the medieval period, but these factors do not necessarily indicate any likelihood that such occupation will have occurred across the proposed development area.

The development of Troon Harbour is part of the early history of industrialisation in Scotland. Constructed by the Duke of Portland in 1808, the Troon headland had long been recognised as a good natural harbour, but had never been exploited as such on any scale. The Harbour is Category B Listed and is the site of the first operating steam railway in Scotland. However, it is not a harbour frozen in the early 19th century and has continued in use to the present day, undergoing significant change, alteration and rebuilding in this period.

The map regression has shown this development in some detail. The early shipyard and railway were re-worked between 1860 and 1896, with most of the original buildings replaced and removed. Between 1896 and 1909 the southern of the two graving docks was also replaced and re-worked while the continued use of the site as the Ailsa shipyard into the late 20th century saw a three large, modern buildings constructed, two of which were demolished between 1999 and 2005.

The indications from the Desk Based Assessment were that it was unlikely that any archaeological features pre-dating the harbour construction of 1808, or even significant features relating to the early harbour, would have survived the subsequent developments. The excavation of a series of Trial Pits under archaeological supervision confirmed the extensive re-working and landscaping that had taken place across the proposed development area. None of the ten Trial Pits realised natural subsoil or bedrock with over 3.5m of made ground apparent in a couple of these.

6.2 Conclusions

The Desk Based Assessment has revealed no archaeological or historical evidence to indicate occupation of the proposed development area prior to the construction of Troon Harbour in 1808. The creation of the harbour and associated landscaping was a significant undertaking and dramatically altered the pre-existing landscape.

Any features associated with the early harbour of 1808 would be of archaeological significance, and there is the possibility that such features will be buried below the proposed development site. However, the map regression and the aerial imagery has shown the extensive rebuilding, re-working and re-modelling of the site while the Trial Pits reveal deep deposits of made ground. It is unlikely that evidence for industrial features related to the harbour of 1808 will have survived this process.

6.3 Statement of Archaeological potential

Given the lack of evidence for occupation of the Troon peninsula prior to the development of the harbour in 1808; the extensive construction, re-working and remodelling the harbour area has undergone; and the levels of disturbance as illustrated by the depths of made ground in the Trial Pits, the survival of important archaeological deposits associated with the first phase of the harbour or earlier is unlikely.

ARCHAS Cultural Heritage Ltd consider the archaeological potential of the site to be **low**.

6.4 Recommendations

The Conclusions and Statement of Archaeological Potential presented as part of this assessment clearly demonstrate the compromised nature of any archaeological deposits or early structural remains across the proposed development site. As such ARCHAS Cultural Heritage Ltd believe there is no archaeological

impediment to the proposed development and recommend **no further archaeological mitigation is required** in order for the development to proceed.

Section 7.0 Bibliography

7.1 Aerial Images

Table 2: List of aerial images consulted

Date of Image	Location of Image	Name of Image
1946	National Library of Scotland	NS 33 S.W (Ayrshire)
31/12/99	Google Earth	-
31/12/04	Google Earth	-
28/01/05	Google Earth	-
23/07/07	Google Earth	-
27/04/11	Google Earth	-
May 2011	Bing Maps	-
19/06/12	Google Earth	-
October 2012	Bing Maps	-

7.2 Cartographic Resources

Maps consulted during the cartographic regression include:

Robert Gordon of Straloch (c.1580-1661)

- 'Cunningham'. Imprint c.1636-52

Joan Blaeu (1596-1673)

- 'The Province of Kyle'. Imprint 1654

John Adair (c.1650-1722)

- 'A mape of the west of Scotland containing Clydsdail, Nithsdail, Ranfrew, Shyre of Ayre & Galloway'. Imprint 168

Herman Moll (d.1732)

- 'The Shire of Bute: contains Bute and Arran with Cantire which is part of Argyllshire'. Imprint 1745

- 'The South Part of the Shire of Air containing Kyle and Carrick'. Imprint 1745

William Roy (1726-1790)

- 'Military Survey of Scotland'. 1747-1755

Andrew Armstrong (1700-1794)

- 'A new map of Ayrshire'. 1775

John Ainslie (1745-1828)

- 'Ainslie's Map of the Southern Part of Scotland'. 1821

John Thomson (1777-c.1840) & William Johnson (fl. 1806-1840)

- 'The Northern Part of Ayrshire, Southern Part'. 1828

Hydrographic Office, Great Britain (Admiralty)

- 'Troon Harbour'. 1847

Ordnance Survey (1859-present)

- 25 inch to 1 mile Ayr Sheet XXII.13 (Dundonald). Surveyed 1857. Published 1860
- 25 inch to 1 mile Ayr Sheet XXI.16 (Dundonald). Surveyed 1857. Published 1860
- 25 inch to 1 mile Ayr Sheet XXVII.1 (Dundonald). Surveyed 1857. Published 1860
- 25 inch to 1 mile Ayrshire, Sheet 021.16. Surveyed 1895. Published 1896
- 25 inch to 1 mile Ayrshire, Sheet 022.13. Surveyed 1895. Published 1896
- 25 inch to 1 mile Ayrshire, Sheet 027.01. Surveyed 1894. Published 1896
- 25 inch to 1 mile Ayrshire, Sheet 021.16. Surveyed 1908. Published 1909
- 25 inch to 1 mile Ayrshire, Sheet 022.13. Surveyed 1908. Published 1909
- 25 inch to 1 mile Ayrshire, Sheet 027.01. Surveyed 1908. Published 1909
- 6 inch to 1 mile Ayrshire Sheet XXI.SE & XXII.SW. Surveyed 1938. Published c.1947

7.3 Documentary Resources

Duncan, R 'Parish of Dundonald' in *The Statistical Account of Scotland, County of Ayr. Account of 1791-99, Volume 7*, pages 615-625

Fleet C., Wilkes M. & Withers, C. 2011 *Scotland – Mapping the Nation*, Edinburgh

Groome, F. H. 1896 *Ordnance Gazetteer of Scotland*, London

Smith, R. 2001 *The Making of Scotland: A Comprehensive Guide to the Growth of Scotland's Cities, Towns and Villages*, Edinburgh

Willison, A, Fleming, J and Wilson, D. 1841 'Parish of Dundonald' in *The Statistical Account of Scotland, County of Ayr. Account of 1834-45, Volume 5*, pages 666-689

7.4 Websites

www.bing.com/maps/

www.google.co.uk/maps/

www.historicenvironment.scot

www.nls.uk

www.canmore.org.uk

Section 8.0 Appendices – Context Register

Context No.	Trench	Type	Description	Dimension	Comments	Date	Initial
101	1	Deposit	Concrete surface	D: 0.20m	Modern ground surface. Set into dressed stones of graving dock.	25/05/16	RC
102	1	Structure	Undressed medium sized boulders roughly packed	-	Unfaced rear of graving dock wall.	25/05/16	RC
103	1	Deposit	Loose to moderately compact mid brown fine grain sand.	D: 1.6m	Made ground	25/05/16	RC
104	1	Deposit	Services	-	Service pipes.	25/05/16	RC
201	2	Deposit	Rough hardcore surface of mid grey grit and sand abundant in small stones	D: c.0.4m	Made ground. Upper deposit	25/05/16	RC
202	2	Deposit	Moderately compact rough hardcore of mid grey grit and sand with frequent small stones	D: >2.1m	Made ground	25/05/16	RC
203	2	Structure	Strip wall foundation of set concrete. Curvilinear in plan running from NW to S to SE.	D: 0.40m, W: 0.70m	Foundation of insubstantial 20th century structure with 20th century bricks in base	25/05/16	RC
204	2	Structure	Deposit of roughly packed rubble bricks and detritus.	-	Unfaced rear of harbour wall.	25/05/16	RC
301	3	Deposit	Loosely compact orange brown sand	D: 0.60m	Made ground. Upper deposit	19/05/16	RC
302	3	Deposit	Loosely compact mixed black brown gritty sand	D: 0.45m	Made ground. Smell of hydrocarbons	19/05/16	RC
303	3	Deposit	Layer of rubble with bricks and concrete roughly spread.	D: 0.10m	Possible demolition level or working surface. Bricks are frogged and marked.	19/05/16	RC

Context No.	Trench	Type	Description	Dimension	Comments	Date	Initial
304	3	Deposit	Mixed and mottled fine grain sand and debris with an element of tarmac, timber and metal within.	D: 0.95m	Made ground. Very similar to (302)	25/05/16	RC
305	3	Deposit	Flat concrete base	-	Unclear if this is a surface or a large concrete slab	25/05/16	RC
401	4	Deposit	Concrete surface	D: <0.50m	Modern ground surface	25/05/16	RC
402	4	Structure	Reinforced concrete cross wall running W-E perpendicular across trench	D: 0.40m	Modern structural wall	25/05/16	RC
403	4	Deposit	Hardcore of grey small to medium angular stones	D: 2m	Located S of {402}	25/05/16	RC
404	4	Deposit	A layer of rounded tree trunks	-	Located N of {402}	25/05/16	RC
405	4	Deposit	Flat concrete slab	-	Floor surface	25/05/16	RC
501	5	Deposit	Surface of red cinder bedding	D: <0.20m	Modern ground surface	25/05/16	RC
502	5	Deposit	Mixed and mottled mid brown and dark brown gritty sand containing lumps of reinforced concrete.	D: 0.50m	Made ground	25/05/16	RC
503	5	Deposit	Moderately compact sticky mid to dark grey gritty silty sand with a high % of large debris with depth.	D: 1.50m	Made ground. Contains lumps of old metal, plastic bottles etc at depth.	25/05/16	RC
504	5	Deposit	Loose to moderately compact mid brown gritty beach sand. Comparatively clean with flecks of white beach shell.	D: >1.60m	Made ground. Too murky.	25/05/16	RC

Context No.	Trench	Type	Description	Dimension	Comments	Date	Initial
601	6	Deposit	Very loosely compact mottled and mixed dark brown and black gritty sand.	D: 1.5m	Slopes towards the water line (getting deeper towards water). Likely infilling from the landward side.	25/05/16	RC
602	6	Deposit	Moderately compact, comparatively clean mid brown slightly sticky sand	D: >1m	Made ground.	25/05/16	RC
701	7	Deposit	Concrete surface	D: 0.25m	Modern surface	25/05/16	RC
702	7	Deposit	Moderately compact mid to dark brown gritty sand with occasional modern detritus and fragments of brick and ceramic. Large fragments of timber and reinforced concrete apparent with depth.	D: >2.05m	Made ground. Small of hydrocarbons.	25/05/16	RC
801	8	Deposit	Hardcore makeup	D: c.0.20m	Modern surface	25/05/16	RC
802	8	Deposit	Very mixed rubble fill comprising dark grey brown and black brown gritty sand, gravel and construction detritus, reinforced concrete and frogged bricks.	D: 0.65m	Made ground	25/05/16	RC
803	8	Structure	Reinforced concrete floor	D: 0.25m	Modern floor surface	25/05/16	RC
804	8	Deposit	Moderately compact mid brown sand dominated by large angular stones	D: 0.6m	Made ground	25/05/16	RC
805	8	Deposit	Fine grain yellow sand	>0.4m	Made ground	25/05/16	RC
901	9	Deposit	Gravel hardcore	D: 0.30m	Modern ground surface	25/05/16	RC

Context No.	Trench	Type	Description	Dimension	Comments	Date	Initial
902	9	Deposit	Moderately compact mid to dark brown gritty sand with occasional modern detritus, fragments of concrete, Fe.	D: 1.20m	Made ground. Very grubby industrial soil	25/05/16	RC
903	9	Deposit	Mid grey brown fine grain sand	D: >0.50m	Made ground.	25/05/16	RC
904	9	Deposit	Loose compact orange brown sand	-	Made ground	25/05/16	RC
1001	10	Deposit	Hardcore and bedding material	D: c.0.20m	Modern surface	25/05/16	RC
1002	10	Deposit	Moderately compact dark brown/black gritty sand with occasional fragments of Pb pipe	D: 1m	Made ground	25/05/16	RC
1003	10	Deposit	Soft to moderately compact mid light brown sticky sand	D: 0.6m	Made ground	25/05/16	RC
1004	10	Deposit	Silty grey sand intermixed with peaty topsoil and decayed roots	D: >0.50m	Made ground. Intermixed and re-deposited topsoil	25/05/16	RC