CENTRE *for* FIELD ARCHAEOLOGY

University of Edinburgh

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Commissioned by Halliday Fraser Munro on behalf of Safeway Plc

Archaeological Evaluation at Millburn Road, Inverness

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Author: Jamie Hamilton Date 24/5/99

Approved by: Bill D Date 24/5/99

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Jamie Hamilton MA FSA (Scot) AIFA
Illustrator: Kevin Hicks BA AAI&S
Editor: Bill Finlayson MA PhD FSA(Scot) MIFA
CFA Director: Prof. Ian Ralston MA PhD FSA FSA(Scot) MIFA

CENTRE *for* FIELD ARCHAEOLOGY
Old High School
12 Infirmary Street
Edinburgh EH1 1LT

Tel: 0131-650-8197
Fax: 0131-662-4094

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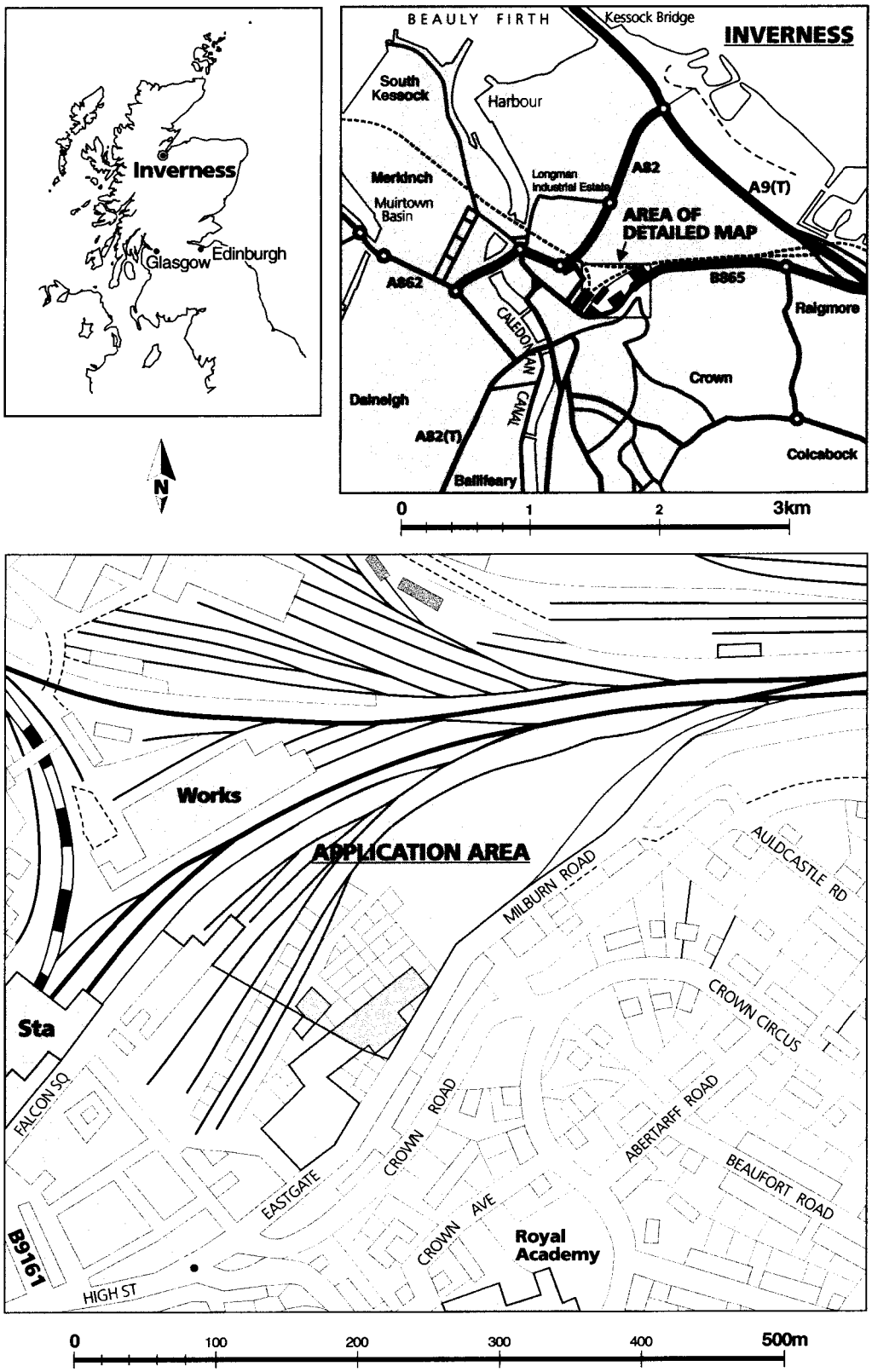

Fig. 1 Location maps.

0 NON-TECHNICAL SUMMARY

0.1 Background

0.1.1 This draft report describes an archaeological evaluation undertaken by the Centre for Field Archaeology (CFA) in advance of a proposed retail development on the site of the Inverness locomotive depot of the Highland Railway (NGR NH 667 455) (fig. 1). The site was most recently used for car parking after the Inverness auction mart abandoned the site. The work took place in May 1999 during a period of generally dry and sunny weather and was commissioned by Halliday Fraser Munro on behalf of Safeway Plc to discharge a condition on planning consent granted by Highland Council. A final report fulfilling all the requirements set down by Highland Archaeology Service will follow.

0.2 Objectives

0.2.1 The objectives of the archaeological evaluation were to uncover and record the nature, extent and preservation of any components of the former locomotive works, and to asses whether there was any archaeological evidence of earlier activity, and to produce a report on the findings. The evaluation area comprised c. 3.5 ha and a minimum 5 % sample of 1750^2 m was agreed with Highland Archaeology Service.

0.3 Results

0.3.1 Of the eleven trenches excavated only three (trenches 5,6 and 9) had no substantive evidence of the former locomotive depot. These showed no evidence of any earlier activity. The remaining eight (trenches1 - 4, 7, 8, 10 and 11) all contained various components of rail track, the roundhouse and turning pit, water tower and coaling stage associated with the locomotive depot. Several finds were recovered from the evaluation which included cast iron building material, copper alloy and rusted iron objects related to the railway and occasional tools. Other modern artefacts and related industrial waste were also found.

1 INTRODUCTION

1.1 General

1.1.1 This draft report describes an archaeological evaluation undertaken by the Centre for Field Archaeology (CFA) in advance of a proposed retail development on the site of the Inverness locomotive depot of the Highland Railway (NGR NH 667 455) (fig. 1). The site was most recently used for car parking after the Inverness auction mart abandoned the site. The work took place in May 1999 during a period of generally dry and sunny weather and was commissioned by Halliday Fraser Munro on behalf of Safeway Plc to discharge a condition on planning consent granted by Highland Council. A final report fulfilling all the requirements set down by Highland Archaeology Service will follow.

1.2 Background

1.2.1 The evaluation is based on a plan sent to CFA on 14th February 1997 by Halliday Fraser Munro, a desk based assessment carried out by CFA in November 1998, and consultation with the curators, Highland Archaeology Service. The proposed development area comprises c.3.5 ha and lies to the east of Inverness railway station. The present railway line forms the north western perimeter of the study area. To the south east the area is defined by Millburn Road. The site lies immediately north of and below a raised beach along the crest of which High Street, Crown Road and Auldcastle Road now run. To the north of the development area, situated within the triangle of railway lines south of the Rose Street Curve was Loch Gorm, a small area of water which was drained in the late 19th century to build the Lochgorm locomotive works. Map evidence, dating to the 19th and 20th centuries, from the desk based assessment suggests the evaluation area was on the very edge of the town in apparently undeveloped land. On Wood's plan of 1821 the area is called Dempsters Parks and a few buildings are shown; a structure called the Lochgorm Inn, and the projected route of a road are shown to the north of Millburn Road (Glendinning 1998).

1.2.2 The site was apparently first occupied by the Inverness and Nairn Railway in 1855 with Inverness auction mart occupying a small area to the south west by 1904. During the late 19th century and 20th century the locomotive depot expanded considerably. This was demolished in1963 and in 1970 the auction mart spread eastwards when the area was used for animal penning and other related activities. By the 1990s the auction mart had fallen into disuse and the north eastern extent of the area was most recently used for car parking.

1.3 Objectives

1.3.1 The objectives of the archaeological evaluation were to uncover and record the nature, extent and preservation of any components of the former locomotive works, and to asses whether there was any archaeological evidence of earlier activity, and to produce a report on the findings. The evaluation area

comprised c. 3.5 ha and a minimum 5 % sample of 1750^2 m was agreed with Highland Archaeology Service.

1.4 Archiving and Finds Disposal

1.4.1 The project archive, comprising all CFA record sheets, plans and reports, will be deposited with the National Monuments Record of Scotland on completion of fieldwork and any relevant post-excavation analysis. Appropriate conservation of finds will be conducted before disposal. Finds will be subject to the Scots Law of Treasure Trove and Bona Vacantia, and will be reported to the Queen and Lord Treasurer's Remembrancer.

1.5 Discovery and Excavation Report

1.5.1 A brief summary of the archaeological results of the evaluation will be submitted for inclusion in *Discovery and Excavation in Scotland 1999.*

1.6 Acknowledgements

1.6.1 CFA would like to thank to Mr. L McIntosh and Mr. D Wilson of Morrisons Construction Ltd. for their help and co-operation on site, and to Highland Archaeology Service for facilitating the archaeological work on behalf of Highland Council. Further thanks go to Geraint Coles, Thomas L Coombs, Frank Spaven and Jim O'Neill for generously supplying information on the site.

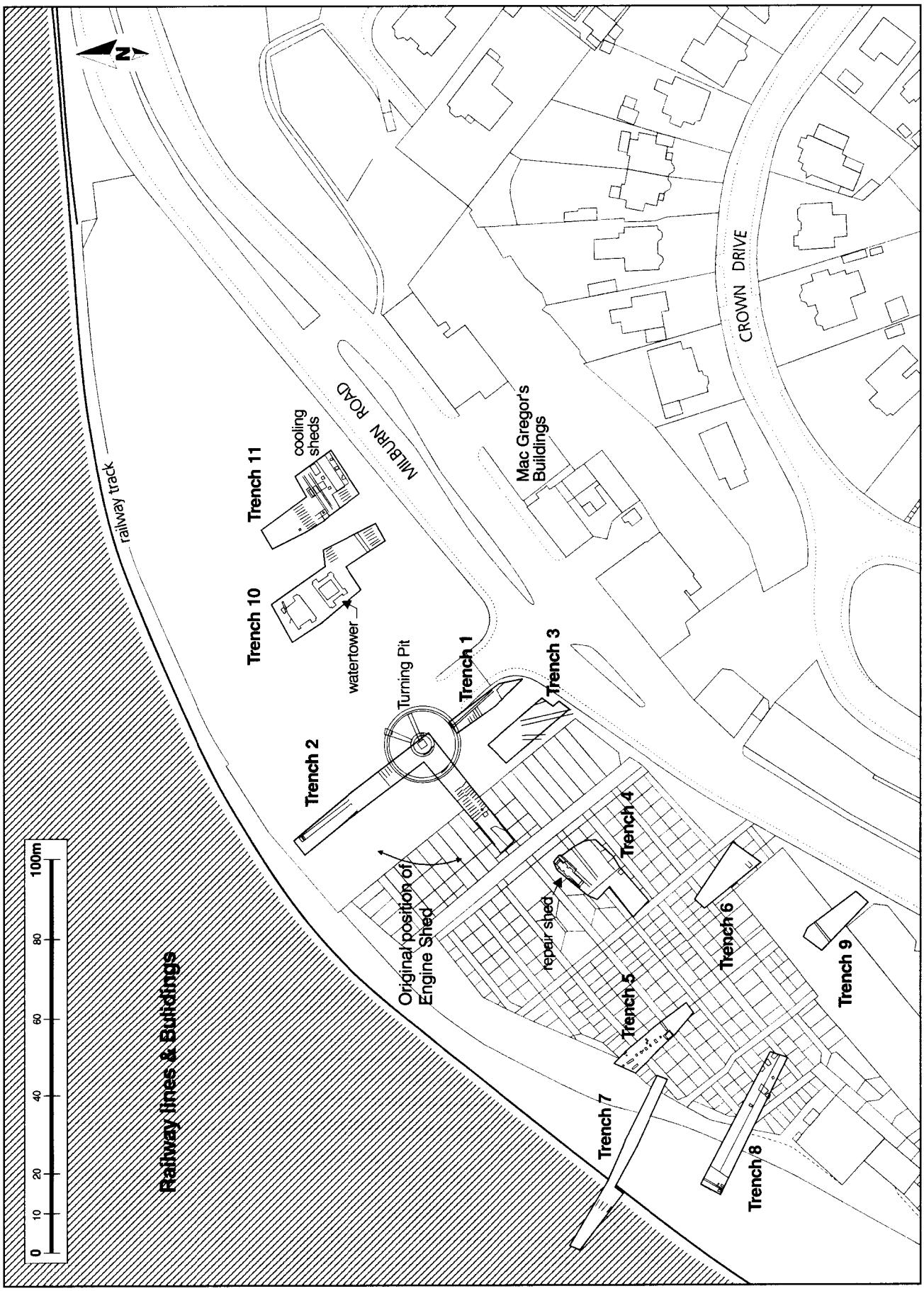

Fig. 2 Map showing trench positions.

2 WORKING METHODS

2.1 General

2.1.1 An effective standard for this type of project has been established by previous research conducted by CFA. This method statement outlines the necessary elements of the work. Recording of all elements was done following established CFA methodology. CFA follows the Codes and Standards set down by the Institute for Field Archaeologists.

2.2 Desk based assessment

2.2.1 A desk based assessment of available documentary and cartographic sources relevant to the historical development of the proposed evaluation area was carried out by CFA in November 1998 (Glendinning, 1998).

2.3 Excavations

2.3.1 Eleven trenches, with a total area of c. 2200^2 m, representing a c. 6 % sample of the development area, were evaluated after the removal of overlying concrete by a 360° earth-moving machine, using a smooth bladed trenching bucket, down to the first archaeologically significant deposits. Where components of the locomotive works were encountered this was at a depth of c. 0.35m below concrete. Where no railway features were present natural subsoils were encountered at a similar depth.

2.3.2 The trenches were placed to give good spatial coverage of the evaluation area and to target areas that appeared likely to yield deposits and features of archaeological significance. Apparently "blank areas", where no remains had been identified or thought likely to occur, were also examined. Trench locations and features were recorded using industry standard EDM survey equipment. After excavation and recording each trench was back filled with the exception of the turning pit which was left open.

3 ARCHAEOLOGICAL RESULTS

3.1 Background

3.1.1 The following information is based on two off-prints from journals. The first is from 1998 by D. Anderson in 'Steam Days' and the second from 1951 by P. L. Melvill and G. B. Seymour in 'The Railway Magazine'.

3.1.2 Inverness and Nairn Railway, opened in 1855, was the first of several independent railways connected to Inverness. The Inverness and Aberdeen Junction Railway continued the Inverness Nairn line eastwards while the Inverness and Ross-shire Railway opened in 1862 with a line northwards as far as Dingwall. This reached Wick and Thurso by 1874. In 1863 the Inverness and Perth Junction Railway completed a link over the Grampians to Perth and the south. In 1865 Inverness, at the centre of a rapidly expanding Highland rail network, became the administrative centre of the newly formed Highland Railway. In 1923 the 242 route miles of the Highland Railway were absorbed by LMS (London Midland Scottish) (D. Anderson 1998).

3.1.3 The original rectangular engine shed at Inverness was opened in 1855 and stood on the site of the current Lochgorm Works on the north side of the line. This remained in use for about eight years and was replaced by the earliest part of the engine shed, or roundhouse, on the south side of the line, with 21 roads. This was completed and in use by the autumn of 1864. A rectangular repair shed was incorporated onto the back of the roundhouse on the western side. This semi-circular feature, designed by Joseph Mitchell and unique to Scotland at the time, was subsequently extended to a three quarter segment roundhouse, increasing the number of roads to the roundhouse from 21 to 31 (P. L. Melvill and G. B. Seymour 1951). In the late 1940s the arched entrances to the engine bays were removed to provide more room for larger locomotives (C. Hawkens, G. Reeves and J. Stevenson 1998).

3.1.4 Central to the roundhouse was the turntable, originally 45 ft (13.70m) in diameter and manually turned. This was replaced in c.1926 with a larger 63 ft 4in (19.29m) vacuum powered turntable capable of turning up to 130 tons. The turntable was approached through an arch in a Doric-style masonry water tower which was built in 1863, at the same time as the first components of the roundhouse, and designed as an architectural counter-balance to the western repair shed. It was the intention to continue the roundhouse to meet the water tower and form a complete circle, with the outer face of the roundhouse meeting the inner face of the water tower. This was never fulfilled.

3.1.5 On the south side of the approach to the water tower a mechanised coaling stage was installed by LMS in 1930. This allowed the rapid coaling of the locomotive tenders by only three men, replacing the earlier more cumbersome system employing seventeen men (P. L. Melvill and G. B. Seymor 1951).

3.2 Excavation

3.2.1 The first trenches opened were designed to locate components of the locomotive works to asses the nature, depth and condition of these features. Trenches 1 & 2 were placed over the turning pit and roundhouse and uncovered both these features with both *in situ* sleepers and stains of sleepers leading from the turning pit to the roundhouse.

3.2.2 Trench 1 revealed the edge of the turning pit and the inner lip of the roundhouse with evidence of an engine bay. Between the two a series of sleeper stains was clearly evident.

3.2.3 Trench 2, an L-shaped trench, was widened and extended northwards to expose the full length of one of the roads from the turning pit to the back of the roundhouse. This showed two sets of sleeper stains with the occasional sleeper still *in situ* leading to the roundhouse. A single engine bay with a c.16.5m long, c. 0.6m deep inspection trench was fully excavated and recorded. This was accessed by steps at its northern end and a ramp at the southern end. The mouth of a second radial engine bay could be seen in this trench.

3.2.4 Trench 2 was extended over the turning pit from the edge to the centre and this was partially emptied of rubble and debris from the demolition of the roundhouse in 1963. Subsequent to this the entire turning pit was emptied at the request of Highland Council. The building contractors also wanted the turning pit emptied as they considered the building debris within unsuitable foundation material for the proposed development. The turning pit was circular with a 19.29m diameter. The base of the pit sloped towards the centre where there was a raised dais surrounded by a gutter. The depth at the pit edge is 0.93m and the deepest point below the pit edge is c. 1.75m. On the raised dais in the centre of the turning pit eight studs were found set into the ground. These supported the central turning bearing. Around the inside edge of the pit various metal studded features and clamping devices were recorded. These were thought to support the track for the wheels of the turning bridge. The only tool recovered from within the turning pit was a rusted pinch bar despite reports that the feature had been used as a dump for discarded equipment. However, from amongst the building debris several unidentifiable iron, and occasionally copper alloy, objects and artefacts were recovered. Amongst this material was the massive central turning bearing, rusted and seized.

3.2.5 Trench 3, adjacent to trench 1 revealed components of three roundhouse bays essentially similar to that exposed in the northern leg of trench 2. These, as the plan of the shed indicated, all radiated out from a central point on the floor of the turning pit.

3.2.6 Trench 4 was placed over the edge of the repair shed on the western edge of the roundhouse. This revealed another engine bay and the footprint of a structure which plans indicate was used as various messrooms, and related functions, for fitters.

3.2.7 Trenches 5 and 6 contained no features relating to the locomotive works and showed no evidence of any earlier activity. Miscellaneous regular rectilinear features, in addition to modern drainage components, found in these trenches and measuring c. 0.8m x 0.3m and c. 0.2m deep, probably relate to the auction mart. Corroded upright nails within these features suggest a recent date for these features.

3.2.8 Trenches 7 and 8 revealed components of the railway station with evidence of tracks alongside platforms and relate to the goods, rather than passenger, system within Inverness Station.

3.2.9 Trench 9, adjacent to the old auction shed of the auction mart revealed no components of the locomotive works. Three regular rectilinear features very similar to those revealed in trench 5, were uncovered.

3.2.10 Trench 10, to the east of the roundhouse exposed the footprint of the 1863 Doric-style masonry water tower. This had been demolished, along with the roundhouse, in 1963 and only the basal courses of dressed, red sandstone remain. Subsequent drainage events and structures relating to the mart had damaged the northern edge of the water tower foundations, although enough of the structure remained to identify architectural details visible from photographs. In addition to the water tower rail, lines were apparent from *in situ* sleepers and stains of sleepers.

3.2.11 Trench 11 revealed components of the coaling stage which included an inspection trench with a deep metal lined hopper and feeder adjacent. A deep pit with wall ladder access was also uncovered adjacent to the inspection trench. Various structural features were evident between rail lines from surface evidence of brick and concrete footings.

4 EVALUATION

4.1 The evaluation has revealed several well preserved components of the old locomotive works in Inverness. The remains located match very closely to those identified on plans and photographs, indicating that the documentary information available represents a very good record of the site. It appears that the locomotive works did not extend significantly westwards beyond the repair shed on the roundhouse.

4.2 The evaluation trenches were extended to ensure that a good representative sample of the features present could be examined on the ground and their construction recorded. In particular the turning pit was fully exposed. The main part of the base of the circle appears to have been constructed with a thin layer of concrete which is showing some signs of damage and appears to be relatively fragile. There are examples of working turntables on preserved railway lines elsewhere in the country.

4.3 Many of the remains have been extensively photographed since the latter part of the 19th century and the engine shed and water tower are well known features. The importance of the railway to Inverness is well known. Unfortunately all that now remain are the somewhat fragmentary foundations of these features, which given their relatively recent date, and the preservation of upstanding functioning examples elsewhere, do not represent a major archaeological resource.

4.4 Where trenches were opened over ground with no components of the locomotive works, there was no evidence of earlier activity within the clean sands that constitute the sub-soil. Inspection of a c. 4m deep trench excavated by the contractors showed a profile of continuous clean marine sands. The site appears to be covered by a considerable depth of sterile sand, with no sign of any early features contained within the accumulation of sand. A few modern features cut into the natural sands were all that were located. It is of course possible that prehistoric, medieval or early post medieval features survive as isolated features, but it is unlikely that significant archaeological remains either survive or are present.

5 FURTHER WORK

5.1 No further fieldwork on this project is considered necessary.

5.2 Where possible the remains associated with the railway should be preserved *in situ* in accordance with advice given in NPPG5. As these remains lie mainly in the area identified for car parking this would appear to be unlikely to represent a problem. Given the fragility of some of the remains, especially the turning pit, reburial of the features represents the best solution for preservation. Consideration could be given to marking out the position of some of the features on the car park surface.

5.3 We recommend that a short report be produced on the results of the archaeological fieldwork for publication in a suitable outlet. We would be pleased to provide a costing for this work following consultation with Highland Archaeology Service.

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Hawkens, C., Reeves, G. & Stevenson, J. 1989. LMS Engine Sheds, Their History and Development, *The Highland Railway* Vol. VI pp62 - 80 Irwell Press, Middlesex

Melvill, P. L. & G. B. Seymor 1951 Inverness Motive Power Depot *The Railway Magazine* pp 614 - 615 September1951

Wood, J. 1821 Plan of the Town of Inverness

Appendix 1 Component register

Component	Trench	Description
001	1 & 2	Turning Pit
002	1, 2 & 3	Roundhouse
003	1, 2 & 3	Rail line to roundhouse
004	1, 2 & 3	Roundhouse bays
005	4	Repair shed
006	4	Repair shed Bay
007	4	Fitters Messrooms
008	7 & 8	Rail line and platform
009	10	Water tower
010	7, 8 10 & 11	Rail line
011	11	Coaling stage
012	5 & 6	Modern rectilinear features

Appendix 2 Drawing Register

Drawing N°	Drawn by	Component	Section/plan	Trench	Date
safe1	JH	1 - 8	plan	1 - 7	
safe2	JH	1 - 4	plan	2	
safe3	JH	8	plan	7	
safe4	JH	1, 2, 3 & 4	plan	1 & 2	
safe5	JH	012	plan	5	
safe6	JH	8	plan	8 & 9	
safe7	JH	1, 2, 3 & 4	plan	2	
safe8	JH	9, 10, 11 & 12	plan	10 & 11	
009	CM	002	plan		
010	IS	001 (detail)	plan		

Appendix 3 Provisional Photographic Register.

Film No.	Frame	Component	Taken by	Date	Conditions	Description
1 & 2	1 - 4	001	JH	28/5/99	sunny	from the W
	5 - 8	003	JH	28/5/99	sunny	from the NE
	9 - 15	005	JH	29/5/99	sunny	from the S
	16 - 18	008	JH	29/5/99	sunny	from the NW
	19 - 24	012	JH	30/5/99	sunny	various
	25 - 26	012	JH	30/5/99	sunny	from the S
	27 - 31	012	JH	30/5/99	sunny	from the NE
	32 - end	Trench 6	JH	30/5/99	sunny	from the E
3 & 4	1 - 3	012	JH	3/5/99	o/c	from the N
	4	general	JH	3/5/99	o/c	from the N
	5	008	JH	3/5/99	o/c	from the SE
	6 - 8	general	JH	3/5/99	o/c	from the NE
	9	general	JH	3/5/99	o/c	from the NE
	10 - 12	008	JH	3/5/99	o/c	from the S
	13 - 25	012	CM	4/5/99	o/c	detail

	26 - end	2, 3, & 4	JH	4/5/99	sunny	detail
5 & 6	1 - 3	1, 2, 3 & 4	JH	5/5/99	sunny	from the N
	4 - 14	5, 6 & 7	JH	5/5/99	sunny	detail
	15 - 22	1, 2, 3 & 4	JH	5/5/99	sunny	detail
	23 - 26	finds	JH	5/5/99	sunny	detail
	27 - end	1, 2, 3 & 4	JH	5/5/99	sunny	general
7 & 8	1 - 3	008	JH	6/5/99	sunny	from the N
	4	rail types	JH	6/5/99	sunny	from the SE
	5 - 14	5, 6 & 7	JH	6/5/99	sunny	various
	15 - 17	sub-soil	JH	7/5/99	o/c	from the NW
	18 - 23	008	JH	7/5/99	o/c	from the S &
	24 - 30	trench 9	JH	7/5/99	sunny	from the N &
	31 - 37	008	JH	7/5/99	sunny	from the N
9 & 10	1 - 7	008	JH	7/5/99	sunny	from the E
	8 - 13	1, 2, 3 & 4	JH	7/5/99	sunny	from the SW