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Shrubhill Transport Depot, Edinburgh Results of Archaeological Evaluation

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Project summary sheet

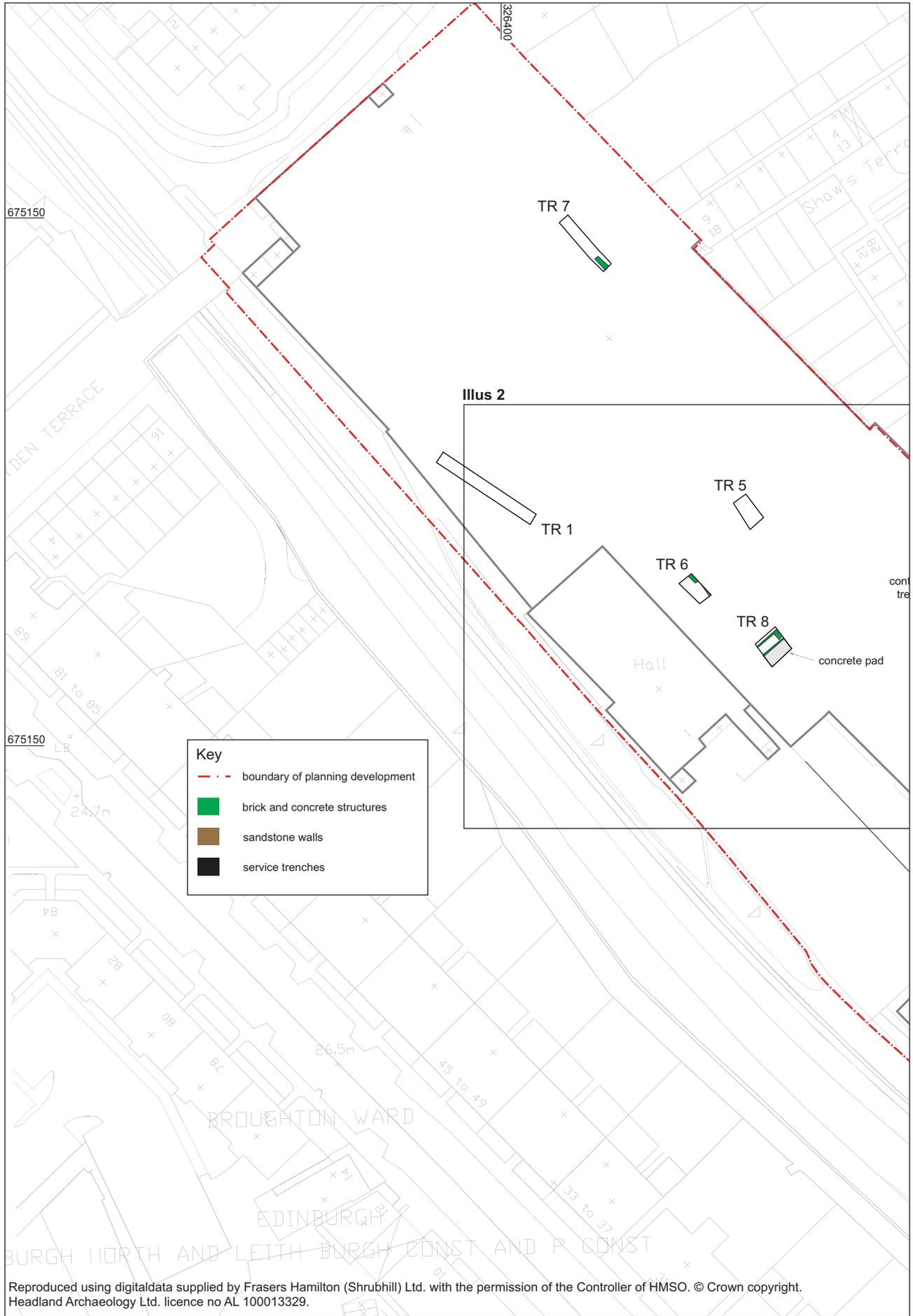
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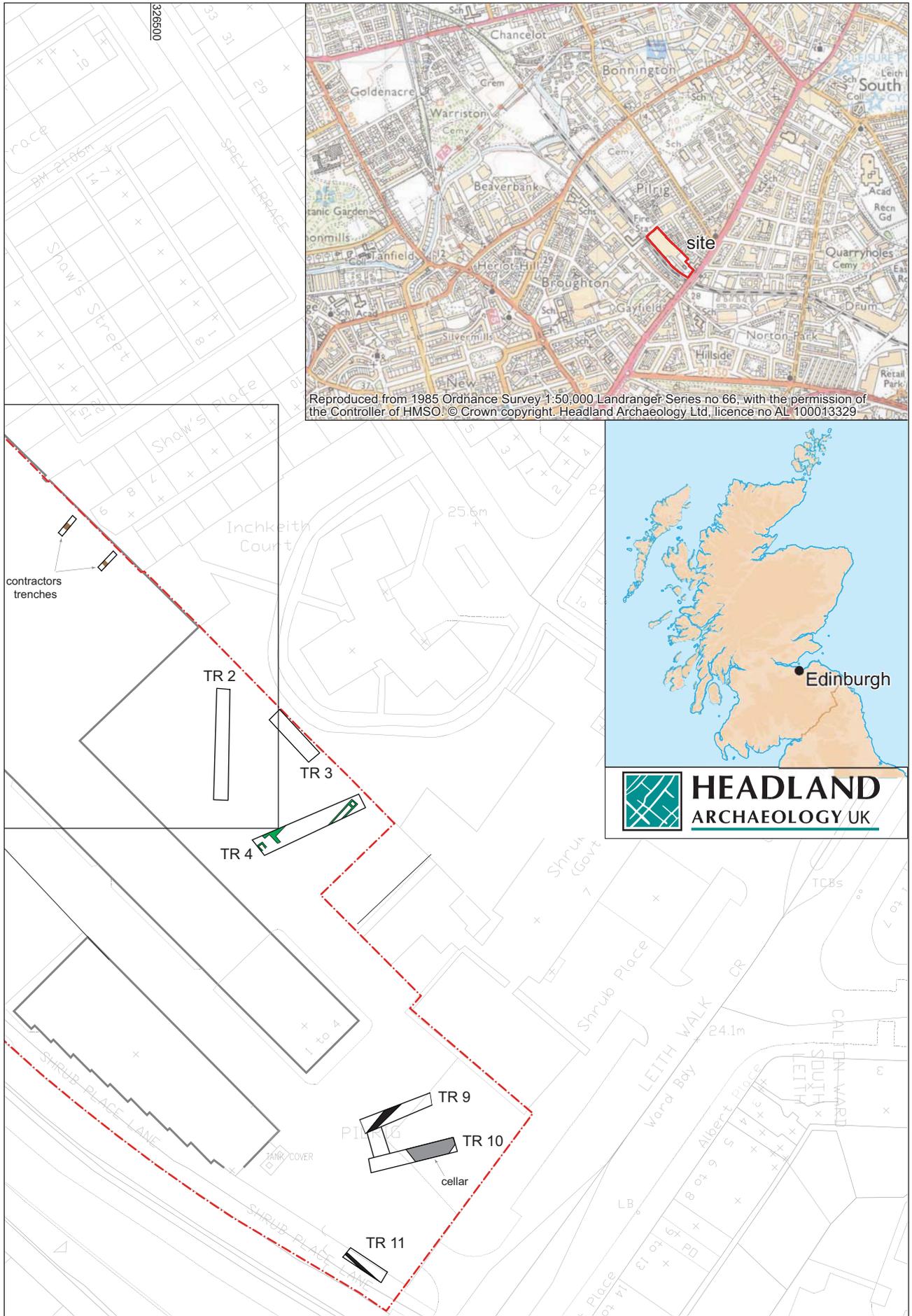
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Illus 1
Trench and site location

Shrub Hill Transport Depot, Edinburgh

Results of Archaeological Evaluation

By
Kate Bain

Headland Archaeology was commissioned by Frasers Hamilton (Shrubhill) Ltd to undertake an archaeological evaluation at the site of the former Shrubhill Transport Depot, Edinburgh, as a condition of planning consent ahead of the redevelopment of the site.

Desk based assessments, carried out by AOC Archaeology (Gooder 2000) and Headland Archaeology (Geddes 2008), suggested that the first significant historical reference to the development site was as the possible site of public executions from the 16th to the 17th century. In the 17th century the 'Shrub Hill was extensively quarried for mortar sand in the New Town. By the later 18th century, however, the site was bought by the Maxwells of Monreith who erected Shrub House, a small country house and gardens, in around 1800. Shrub House and its gardens were gradually encroached upon by subsequent developments including that of the Edinburgh Street Tramways stables and workshops. The horse drawn trams were replaced by a cable system in the late 19th century, the development of which included the construction of a number of highly decorated brick buildings. The remainder of the site, including Shrub House, was demolished in the 1960's to be replaced by offices and sheds for East Lothian Transport.

The earliest deposit encountered was thought to represent glacial material, overlain with later deposits of windblown sands. The lack of windblown material toward the north-western end of the site was thought to be the result of 17th century quarrying identified in historic accounts of the site. This quarrying combined with the natural slope of the site accounts for a drop in level of over 3m from the front to the rear of the site.

Contractors' excavations for structural supports at the north-eastern edge of the site revealed the remains of a substantial sandstone wall. A second fragmentary wall was identified in evaluation Trench 6, toward the western side of the site on a similar northwest-southeast alignment. Both walls appeared to represent parts of buildings associated with the 'Tramway Company's Stores and Stable's' as depicted on the Ordnance Survey map of 1877.

Trenches excavated on the site of the former Shrub House revealed that the structure had been demolished in its entirety and the site comprehensively levelled, the only structural remains within the trenches representing buildings erected in the 1970's.

The remains of brick and concrete structures observed within the remainder of the trenches were associated with known buildings dating to the 20th century.

INTRODUCTION

This report presents the results of an intrusive archaeological evaluation carried out on the site of the former Shrubhill Transport Depot, Edinburgh. The evaluation was carried out as part of a planning condition imposed by the City of Edinburgh Council pending development of the site. The evaluation sought to investigate the potential of there being buried archaeological remains on the site that might require further mitigation to be carried out in advance of or during the development process.

The evaluation was carried out in accordance with a specification submitted, and previously agreed with John Lawson of the City of Edinburgh Council Archaeology Service (CECAS).

BACKGROUND

The site was located in the area of the recently demolished Shrubhill Transport Depot. The northern site boundary was formed primarily by the late 19th century engine house and other associated structures. The site was bounded to the east by the retained gables of the main tram shed, remnants of demolished later structures and chain link fencing. The western edge of the site was bounded by Shrub Place Lane, adjacent to the railway line and further

elements of the main tram shed. The site fronted onto Leith Walk.

The site was subject to earlier Desk-based assessments and a programme of historic building survey (Gooder 2000 & Geddes 2008). As a result of the desk based investigations the site was deemed to have archaeological potential, particularly in the area around the site of the historic Shrub House.

A series of 11 trial trenches was excavated in the open areas around the standing buildings. The remainder of the trenches were distributed across the site at locations considered to have the highest archaeological potential and the lowest levels of truncation.

The aim of the evaluation was to determine the presence/absence, character, extent and quality of any remains threatened by the proposed development.

METHODOLOGY

A total of 140 linear meters of trenching was excavated with a 360° tracked mechanical excavator fitted with a 2m wide toothless ditching bucket. A Digicat Cable Detector was used before trenching commenced to offset the possibility of disturbing any unmarked services. A total of 11 trenches were

excavated, ranging from approximately 20m to 5m in length. All trenches were backfilled after being recorded.

The location of all trenches was plotted to Ordnance Survey National Grid coordinates. Individual trenches, features and deposits were recorded on pro-forma record sheets. A full photographic record was kept, using colour transparency and black and white print film. The photographic and context records are presented in abbreviated form in Appendix 1 & 2. The locations of all modern features were plotted as a matter of course.

RESULTS

A preliminary walkover was carried out prior to trenching commencing to ascertain any potential areas for targeted excavation. The walkover ascertained that the greater part of the northern end of the site had been subject to extensive cellaring, reducing its archaeological potential. A similar case was observed in the area formerly occupied by the main tram shed where below ground inspection pits were identified, thought to be associated with a brick cable tunnel. Large areas at the centre and on the south-western edge of the site were occupied by stockpiles of demolition rubble rendering those areas inaccessible. The highest archaeological potential was thought to be on the site of the former Shrub House, on higher ground at the south-western edge of the site. Numerous fragments of worked stone, thought to have originated from this building, were observed within the rubble which was spread over the area under investigation. Southern extent of the site consisted of an area of tarmac given over to parking and the building contractors' site compound.

Trenches 1 & 7

Trenches 1 and 7 were excavated to an average depth of 1.3m with a machine cut sondage 2m deep at the southern end of Trench 1. In both trenches, orange yellow sand was revealed, becoming coarser with occasional clayey patches at its lower levels. In both trenches this was overlain by relatively recent building rubble. The partial remains of a brick and concrete structure was identified at the southern end of Trench 7 and the cut of a north-south aligned drainage trench was observed in Trench 1.

Trenches 2-4

Trenches 2-4 were excavated on the site of the former Shrub House. Despite the presence of numerous fragments of worked masonry thought to have originated from this structure, no evidence of Shrub House was encountered. Instead, below a layer of demolition rubble at an average depth of 0.75m, clean windblown sand was encountered. Evidence of later structures was identified in the form of a



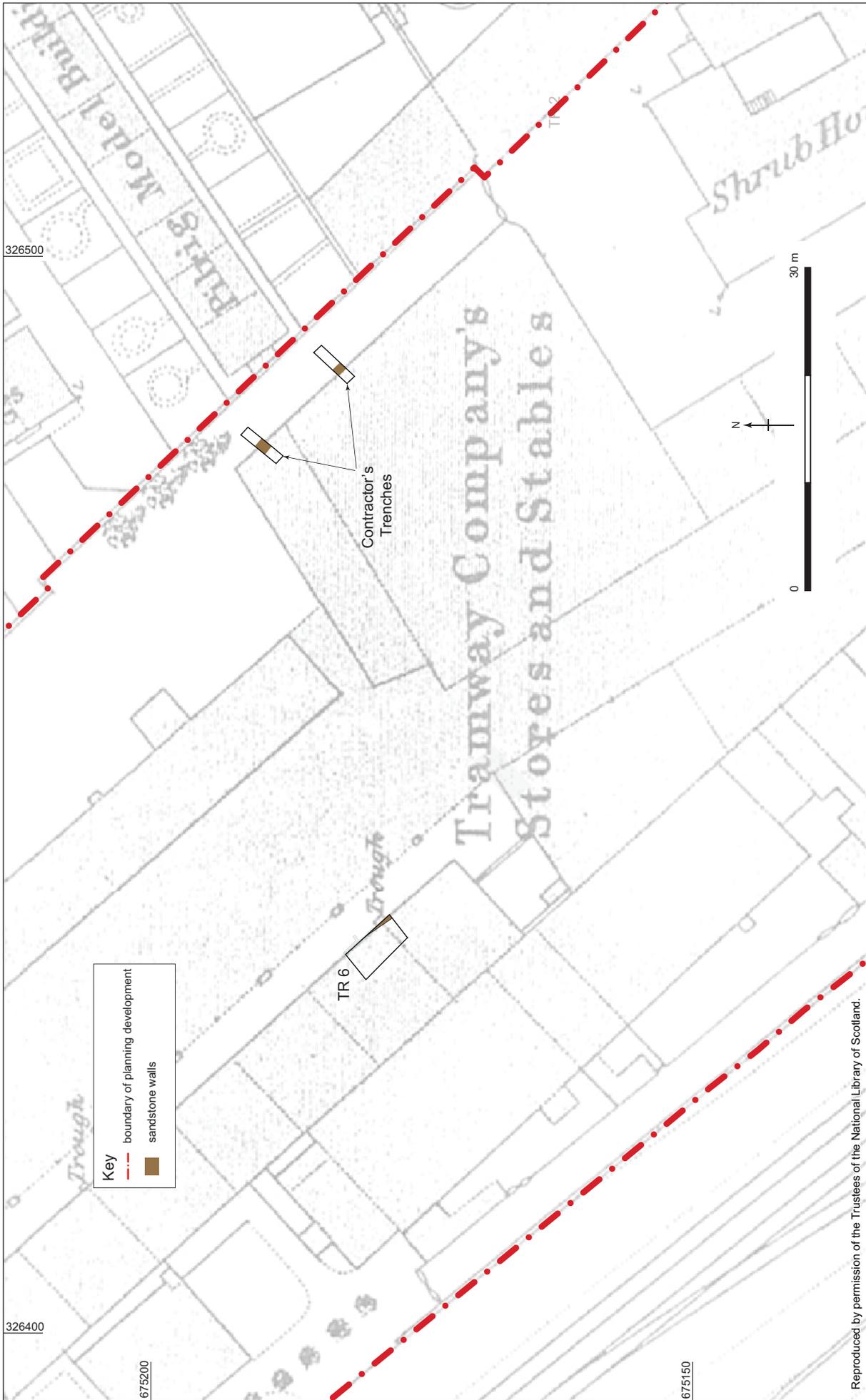
Illus 2

Trench 1 showing sondage through glacial sands



Illus 3

Trench 3 showing natural sands on site of Shrub House



Illus 4
Sandstone walls identified on 1877 plan of site

row of at least 3 large concrete blocks incorporating the remains of RSJs toward the western limit of the Shrub House site and a continuation of the remains of a brick building seen just to the south.



Illus 5

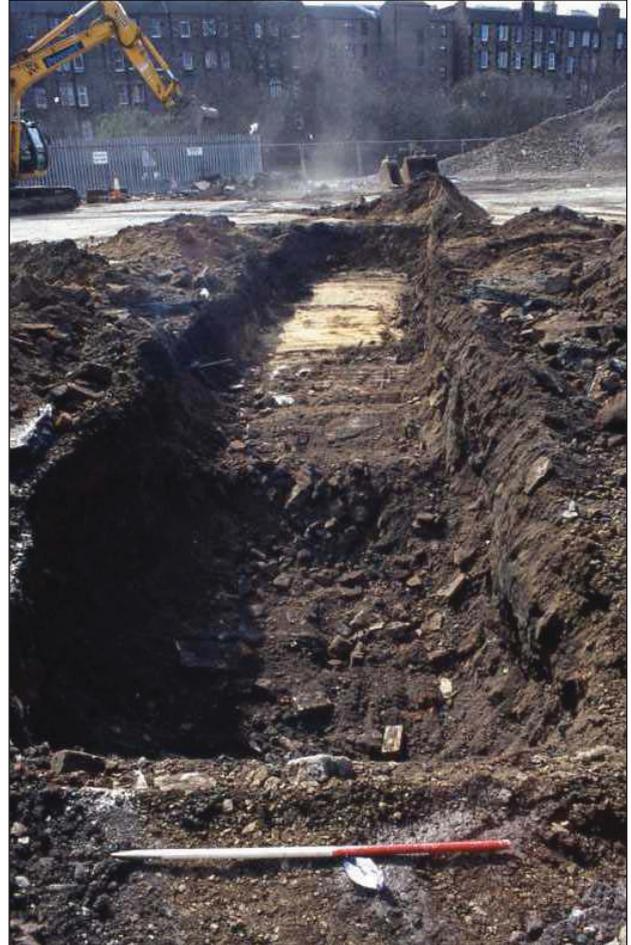
Trench 6 showing remains of truncated sandstone wall

Trenches 5, 6 & 8

These trenches were excavated toward the centre of the site within the area previously occupied by the main tram shed. Trench 5 was excavated roughly at the centre of the site to a depth of 2m onto natural sands. A thick layer of dark brown sand-loam with frequent brick rubble sealed the natural above which was modern building rubble. No other features or deposits were observed within this trench. Trench 6 was located approximately 14m to the west of Trench 5 and 6m from the western wall of the former tram shed. It was excavated to a maximum depth of 1.6m at which the level of the natural sand was established. In the south-west facing section of the trench the remains of a substantial stone wall were encountered. The wall, which appeared to be on a similar line to one depicted on the 1877 Ordnance Survey, consisted of large unmortared sandstone blocks, slightly stepped to form a wider platform at its base. No construction cut was visible in association with the wall, however this was assumed to be the result of later truncation by brick and concrete walls associated with the development of the tram shed. The top of the trench was sealed under part of a large expanse of concrete, forming the floor of the former tram shed. Trench 8 was positioned just over 10m to the south of Trench 6 in order to establish the possible southerly continuation of the stone wall observed in section. The trench was excavated to a maximum depth of 0.80m and contained a thick concrete pad at its southern end with the remains of two southwest-northeast aligned brick walls, forming linear bays, at its centre and northern end. A large brick pier was also encountered within the central bay, partially below the south-west facing section.

The natural sand was not encountered within this trench and excavation was abandoned due to the logistical difficulty of removing the concrete structural elements. No

other features of archaeological significance were revealed within the trenches.



Illus 6

Trench 10 showing area of backfilled cellaring

Trenches 9-11

Trenches 9, 10 and 11 were located in the area fronting onto Leith Walk toward the south-eastern limit of the site. Due to the presence of a thick layer of tarmac it was necessary to link Trenches 9 and 10 with a short adjoining to better facilitate their excavation. Trench 9 was aligned roughly east-west and was located just to the east of the access ramp leading down to the level of the main tram shed. The natural, windblown sand was encountered at a maximum depth of 0.80m, disturbed only by the line of a former service trench at its eastern end and sealed by a layer of brown sand-loam containing building rubble, similar to that seen in other areas of the site. The short length of trench adjoining Trenches 9 and 10 revealed a continuation of this stratigraphic sequence. Trench 10 was excavated at 90° to the short adjoining trench and ran parallel to Trench 9, 5m to the south. The eastern end of the trench showed a continuation of the sequence in Trench 9. The western end of the trench, however, was occupied by a large expanse of vacuous building rubble, excavated to a depth of 2.2m and subsequently abandoned for

safety reasons. A layer of granite setts was also observed at the eastern end of the trench in the north facing section, sealed by the modern tarmac. Trench 11 was located at the south-western corner of the site on a north-west-southeast alignment. The natural sand was encountered at a maximum depth of 0.52m and with the exception of a single former service trench was relatively undisturbed. It revealed a similar stratigraphic sequence to that seen in Trench 9 and was sealed by modern tarmac.

Contractors Excavations

A series of narrow structural support trenches were excavated toward the eastern site boundary along the retained gable of the main tram shed. Two of the trenches, toward the southernmost end of the gable, contained the remains of a substantial, north-west-southeast aligned, stone wall. The wall, measuring approximately 0.9m wide was visible to a depth of approximately 1.75m below modern the modern ground surface. No construction cut for the wall was visible within either of the trenches in which it appeared and no further investigation was possible for reasons of health and safety. The position of the wall appeared to coincide with one depicted on the 1877 Ordnance Survey as part of the complex of buildings associated with the early tram depot.



Illus 7
Contractors trench showing sandstone wall

SEDIMENT ANALYSIS

By Dr S Lancaster

Introduction

Two sediment exposures on the site were examined during the site visit with a view to understanding the man natural formation processes on the site. One of the exposures was in the south-western face of Trench 7. The other was the profile of a plateau

of land preserved at the south-eastern edge of the site, on top of which formerly stood the site of Shrub House.

Results

Trench 7 exposure

The basal deposit in Trench 7 was a stiff massive sandy clay, mostly red brown, with areas of grey brown. This deposit is interpreted as glacial till. Overlying this deposit was up to 0.6m of dense fine pale yellow slightly silty sand. This deposit closely resembles that at the base of the observed sequence in the other exposure. Above this deposit the natural sequence was completely truncated by cultural deposits.

Plateau exposure

Measurements were taken from the ground surface at the time the evaluation was carried out.

The ground surface, to a depth of 0.30m was represented by 0 - 0.3m of demolition rubble and made ground. Below this was 30-50 cm of loose pale yellow sand followed by 0.50- 1.0 m alternating fine (2-3 mm) laminae of fine pale yellow sand, coarse pale yellow sand and thicker laminae (4-5mm) of red brown coarse sand with a straight lower boundary. At a depth of 90 cm from the ground surface was a thin layer of coarse grit and small stones.

This was sealed by Laminae of fine pale yellow sand, with occasional laminae of dark coarse sand and occasional layers of red brown humic silty sand to sandy silt, varying from 0.01 to 0.03 m in thickness, to a maximum depth of 1.75m. The lower boundary of this sequence was also straight.

At a depth of 1.75-2.15 m Laminae of fine pale yellow sand and coarse pale yellow sand with a convoluted lower boundary. The material at the base of the sequence, at a maximum depth of 2.70m was observed to be massive dense fine, slightly silty, sand.

Discussion

Assuming that the dense pale yellow slightly silty sand recorded in both sequences is the same unit, then it is possible to suggest a natural sequence for the site from the end of the last glacial period. The sequence appears to consist principally of wind blown sand, given the degree of sorting noted in most of the deposits. The sequence has mostly been one of deposition. In contrast only two significant erosive episodes were noted. The contact between the lowest unit in the Road exposure and the unit above has a convoluted form indicative of erosion. Higher up the sequence (at approximately 0.9m) there is a line of stones and grit which is sufficiently sorted to suggest that it is a deflation lag deposit, i.e. that which is



Illus 8

Profile of natural sand formation below site of Shrub House

left behind when finer material is blown away by the wind. In the unit from 1.0-1.75m accumulation has been intermittent and the intervals between episodes of deposition that soil formation has occurred. The resulting stabilisation layers are not very thick; suggesting that any hiatus in deposition was relatively short lived, perhaps in the order of a few years.

CONCLUSION

Investigated profiles of the natural sand horizons suggested that windblown sands survived to its greatest extent on the site of the former Shrub House with an increased tendency to glacial sands toward the north-western end of the site. The northern portion of the site was considerably lower than the southern in part due to the natural slope of the site but, as indicated by the lack of windblown sands, also as a probable result of sand quarrying likely to have taken place in the 17th century. No evidence of Shrub House were identified during the evaluation which suggests that its demolition in the 1960's also involved a measure of site levelling, removing any trace of the former building. The evaluation suggested that the earliest surviving archaeology on the site was likely to date to the late 19th century, comprising truncated sandstone structures associated with the 'Tramway Company's Stores and Stable's' as depicted on the Ordnance Survey map of 1877.

REFERENCES

- Geddes G 2007. *Written Scheme of Investigation for a Programme of Archaeological Works Former LRT Depot, Tramway Workshops and Power Station Shrub Place Lane, Edinburgh Headland Archaeology Ltd.*
- Geddes G 2008. *Shrubhill Transport Depot Phase 1 Archaeological Mitigation Headland Archaeology Ltd, unpublished report.*
- Gooder J 2000. *Shrub Place Edinburgh: Desk-based Assessment AOC Archaeology Group, project number 3222*

APPENDIX 1

Trench Statistics - Shrub Hill Transport Depot, Edinburgh*Trench 1*

Length: 20m Alignment: NW-SE

Average depth: 1.10m

Maximum depth: 2.0m

Context No.	Description	Depth of deposit
100	Demolition rubble	1.0m
101	Dark brown loam-sand with rubble inclusions	0.80m
102	Compact orange sand marbled with blue clay	2m deep sondage excavated

Trench 2

Length: 20m Alignment: N-S

Average depth: 1.0m

Maximum depth: 1.2m

Context No.	Description	Depth of deposit
200	Demolition Rubble	0.90m
201	Pale yellow natural sand	<0.80m

Trench 3

Length: 10m Alignment: NW – SE

Average depth: 0.75m

Maximum depth: 1.9m

Context No.	Description	Depth of deposit
300	Demolition rubble and debris	0.30m
301	Dark brown sand-loam with occasional rubble fragments	0.45m
302	Pale yellow natural sand	1.15m

Trench 4

Length: 20m Alignment: NE – SW

Average depth: 0.55m

Maximum depth: 0.55m

Context No.	Description	Depth of deposit
400	Demolition rubble and debris	0.35m
401	Inspection Pit; Brick structure	0.30m
402	Dark brown silt-loam with rubble fragments	0.20m
403	Pale yellow natural sand	<0.55m

Trench 5

Length: 5m Alignment: NW – SE

Average depth: 2.0m

Maximum depth: 2.0m

Context No.	Description	Depth of deposit
500	Demolition rubble and debris	1.0m
501	Dark brown silt-loam with rubble fragments	1.0m
502	Pale yellow natural sand	<2.00

Trench 6

Length: 5m Alignment: NW – SE

Average depth: 0.60m

Maximum depth: 1.6m

Context No.	Description	Depth of deposit
600	Concrete floor	0.30m
601	Dark brown silt-loam with rubble fragments	1.30m
602	2 modern brick structures 1.50m x 1.50m sealed by (600).	1.30m
603	Sandstone wall 2.5m long x 1.3m deep in south-west facing section. Block size ave. 0.30mx 0.25m, lime mortared. Truncated by (602)	1.30m
604	Pale yellow Natural sand	<1.6m

Trench 7

Length: 10m Alignment: NW – SE

Average depth: 1.0m

Maximum depth: 1.0m

Context No.	Description	Depth of deposit
700	Demolition rubble and debris	1.0m
701	Pale yellow natural sand	<1.0m
702	Brick and concrete structure at south-east end of trench	0.20m

Trench 8

Length: 5m Alignment: NW – SE

Average depth: 0.80m

Maximum depth: 0.80m

Context No.	Description	Depth of deposit
800	Concrete floor	0.30m
801	Dark brown sand-loam with rubble fragments	0.50m
802	2 brick structures aligned northeast-southwest (inspection pits) with concrete floors at south-east end of trench.	0.50m
803	Brick column base 1.0m x 0.90m in south-west facing section.	0.50m

Trench 9

Length: 15m Alignment: E – W

Average depth: 0.80m

Maximum depth: 0.80m

Context No.	Description	Depth of deposit
900	Tarmac	0.23m
901	Dark brown sand-loam with rubble fragments	0.52m
902	Pale yellow natural sand.	<0.80m

Trench 10

Length: 15m Alignment: E – W

Average depth: 0.80m

Maximum depth: 2.20m

Context No.	Description	Depth of deposit
1000	Tarmac	0.30m
1001	Partial yard surface; granite setts in north facing section at western end of trench.	0.20m
1002	Dark brown sand-loam with rubble fragments	0.50m
1003	Vacuous rubble infill of former cellar at western end of trench.	<2.20m
1004	Pale yellow natural sand	<0.8m

Trench 11

Length: 10m Alignment: NW-SE

Average depth: 0.52m

Maximum depth: 0.60m

Context No.	Description	Depth of deposit
1100	Tarmac	0.12m
1101	Demolition debris	0.30m
1102	Dark brown sand-loam with rubble fragments	0.10m
1103	Dark brown sand-loam infill of service trench (aligned northwest-southeast)	Not excavated
1104	Pale yellow natural sand	<0.52m

APPENDIX 2

Photographic Register

Shot No.	Direction facing	Description	Initials & Date
1		ID shot	JH 16/04/08
2	NE	Wall in contractors trench	JH 16/04/08
3	NW	Wall in contractors trench	JH 16/04/08
4	NE	Wall in contractors trench	JH 16/04/08
5	NW	Trench 1 general shot	JH 16/04/08
6	SW	Trench 1 NE facing section of sondage	JH 16/04/08
7	SW	Trench 2 general shot	JH 16/04/08
8	NE	Trench 2 SW facing section of sondage	JH 16/04/08
9	SE	Trench 3 general shot	JH 16/04/08
10	SW	Trench 3 NE facing section	JH 16/04/08
11	SW	Trench 4 general shot	JH 16/04/08
12	NW	Trench 4 SE facing section	JH 16/04/08
13	NW	Trench 5 general shot	JH 16/04/08
14	SW	Trench 5 NE facing section	JH 16/04/08
15	NW	Trench 6 general shot	JH 16/04/08
16	NE	Trench 6 SW facing section with sandstone wall	JH 16/04/08
17	SW	Trench 6 NE facing section with brick wall	JH 16/04/08
18	SE	Trench 7 general shot	JH 16/04/08
19	SW	Trench 7 NE Facing section	JH 17/04/08
20	SW	Trench 8 general shot	JH 17/04/08
21	NE	Section of beach and glacial sand sequence	JH 17/04/08
22	E	Trench 9 general shot	JH 17/04/08
23	NW	Trench 9 NW-SE segment	JH 17/04/08
24	SW	Trench 10 general shot	JH 17/04/08
25	NW	Trench 10 SE facing section	JH 17/04/08
26	NW	Trench 11 general shot	JH 17/04/08
27	SW	Trench 11 NE facing section	JH 17/04/08