Bignell, Shacklady and Ewing Ltd.

St. Edwards School, Woodstock Road, Oxford

ARCHAEOLOGICAL EVALUATION REPORT

SP 5030 0920

Planning Application No: 98/30/NF

OXFORD ARCHAEOLOGICAL UNIT

March 1999

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Date: 5/3/99	
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Approved by: R. Williams	HEAD OF FIELDWORK
Date: 18/3/1999	

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ARCHAEOLOGICAL EVALUATION

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St. Edwards School, Woodstock Road, Oxford

Archaeological Evaluation

SUMMARY

The Oxford Archaeological Unit carried out a field evaluation at St. Edwards School, Woodstock Road, Oxford on behalf of Bignell, Shacklady and Ewing Ltd (architects and designers). The evaluation was carried out as part of a planning application to redevelop the Douglas Bader sports centre at St. Edwards School. The evaluation consisting of 11 trenches positioned around the existing sports centre revealed no archaeological deposits. Although the gravel horizon was not exposed in the lower west side of the site due to significant flooding, results from the remaining unaffected trenches suggests that there is an absence of settlement occupation of any period in the proposed development area.

1 INTRODUCTION

1.1 Location and scope of work (Fig. 1)

The archaeological evaluation was initiated as a result of an application to redevelop the Douglas Bader sports centre at St. Edwards School, Woodstock Road, Oxford. The proposal comprises a new two storey sports centre, pool and ancillary with 325 parking places. The proposed development will have substantial impact on any archaeology present and under council environmental policies En 40, 41, 42 and 43 a condition requiring an archaeological evaluation was attached to the planning consent.

1.2 Geology and topography

The site lies between the Woodstock Road and the Oxford Canal. The development area is *c.* 5 ha in area and is currently occupied by the Douglas Bader sports centre, swimming pool, pavilion, two bungalows, ancillary buildings and tennis courts. The geology is Summertown-Radley second gravel terrace over Oxford clay (Geological Survey of Great Britain, Sheet 236) and the site lies around 200 m OD.

1.3 Archaeological and historical background

1.3.1 The site lies in an area of archaeological potential. The gravel terrace upon which the development area lies, and which stretches from St. Giles to Wolvercote and beyond, was the focal point for prehistoric, Roman and early Saxon settlement in the Oxford area. Crop marks including ring ditches and linear features, which indicate prehistoric activity, are located on and immediately adjacent to the site. Roman activity has also been recorded in the close vicinity in the form of pottery dating to 2nd-4th centuries, which was discovered in 1924 during building of a tunnel under the Woodstock Road, between St. Edwards School and the playing fields. However, no archaeological finds or deposits were noted during the construction of the existing buildings and associated landscaping.

1.3.2 Between December 1998 and January 1999 a geological investigation was carried out by Southern Testing Laboratories Limited, at St. Edwards School in the area of the proposed development. The investigation consisted of a series of six shell and auger boreholes. The soils encountered in the trial excavations consisted of up to 1.90 m of soft to firm organic clay or organic clay fill overlying well graded sandy gravel to a maximum depth of 3.70 m. Blue grey plastic silty-clay (Oxford clay) underlay this to a maximum proven depth of 20 m.

2 EVALUATION AIMS

2.1 To establish the presence/absence of archaeological remains within the proposal area.

2.2 To determine the extent, condition, nature, quality, date, depth below ground surface and depth of any archaeological remains present.

2.3 To establish the ecofactual and environmental potential of archaeological deposits and features.

2.4 To make available the results of the excavation.

3 EVALUATION METHODOLOGY

The evaluation consisted of trial trenching. Where possible trenches were positioned in areas within the footprint of the proposed new building.

3.1 Sample size and scope of fieldwork (Fig. 2)

The evaluation was based upon a 1.5% sample of the development area, and consisted of 11 trenches. Four of the trenches were 15 m long and the remaining seven trenches were 10 m long each. All of the trenches were 1.60 m wide.

3.2 Fieldwork methods and recording

The overburden was removed by a mechanical excavator (JCB) under close archaeological supervision down to the surface of the first significant archaeological horizon. All trenches were planned at 1:50 and sections were drawn at a scale of 1:50. All the trenches were photographed using colour slide and black and white print film. Recording followed procedures laid down in the *OAU Fieldwork Manual* (ed D Wilkinson, 1992).

4 RESULTS: GENERAL

4.1 Soils and ground conditions

The underlying soil type varied between the east and west areas of the site. In the east area of the site, where the vertical stratigraphy was deep, the soil type consisted of thick layers of silty-sand and the area remained dry during the evaluation. In the west area of the site, where the vertical stratigraphy was shallow, the soil type consisted of a single thin layer of silty clay overlain by layers of modern rubble. All of the trenches in this area of the site became waterlogged during the evaluation.

4.2 Distribution of Archaeological Deposits

No archaeological deposits were encountered during the evaluation in any of the trenches.

4.3 Presentation of Results

The results of the evaluation are described trench by trench, from the earliest to the latest deposits. The context inventory is contained in Appendix 1. The descriptions of the deposits refer to the individual trenches.

5 RESULTS: DESCRIPTIONS

5.1 Description of deposits

5.1.1 Trenches 1, 2, 3, 4 and 7 (Figs. 3 and 4)

All five trenches were positioned on the west side of the proposed development area (Fig. 2). Trenches 2, 3 and 4 were located in the north-west area of the site. Trench 3 was 15 m long and was orientated north to south whilst Trenches 2 and 4 were each 10 m long and were orientated east to west. Trenches 1 and 7 were located in the south-west area of the site. Both trenches were 15 m long, Trench 1 was orientated north to south whilst Trench 7 was orientated east to west.

A stiff blue/grey clay (103, 203, 303, 403 and 702) was exposed at the base of the excavated trenches. The surface height of this clay in the five trenches varied from *c*.58.50 m OD to *c*.58.65 m OD. A small sondage was excavated into this clay in Trench 3 to a depth of 0.50 m; the base of the clay was not reached. Although the clay was initially observed during machining of the overlying overburden, its surface was below the existing water table and the trenches were soon flooded by water. According to the geological information from the bore holes excavated in this area of the site, the natural gravel is situated above a stiff blue/grey clay (Oxford Clay).

Overlying the stiff blue/grey clay in all of the trenches apart from Trench 7 was a dark greyish brown almost black deposit of clayey-silt 0.35 m thick (102, 202, 302 and 402). This layer appears to represent the earliest worked soil. Substantial root penetration was observed throughout this deposit, but no finds were retrieved during excavation. Overlying this layer in Trenches 1, 2, 3 and 4 was a layer of modern rubble 0.35 m thick deposited as a base to support the modern tarmac.

Overlying the blue/grey clay in Trench 7 (Fig. 4) was 701, a very mixed greyish-brown clayey-silt 0.55 m thick. This layer may represent re-deposition perhaps connected with a general raising of the ground level associated with the construction of the existing sports centre. Immediately overlying this layer were areas of concrete forming a modern base. The modern tarmac was situated above the concrete.

5.1.2 *Trench 5*

Trench 5, positioned in the south-east corner of the site, was 10 m long and orientated north to south. The surface of the natural gravel (501) with patches of sandy clay was observed at the base of the trench at *c*.61.20 m OD. Overlying the natural gravel was a layer of light yellowish-brown sandy-silt (502), 0.45 m thick. This was in turn overlain by a layer of brownish-red sandy-gravel (503) 0.35 m thick Overlying 503 was a greyish-brown sandy-silt (504) 0.30 m thick.

Layer 502 was very similar to the natural soil and appears to represent a partially frost damaged interface situated below the earlier worked soils represented by the layers 503 and 504. Overlying 504 was the modern topsoil. No archaeological deposits were identified within the trench.

5.1.3 *Trenches 6 and 8*

Trenches 6 and 8 were positioned in the lower of the two tennis courts situated east of the existing Douglas Bader sports centre. Both trenches measured 10 m long. Trench 6 was orientated north to south whilst Trench 8 was orientated east to west. The vertical stratigraphy within the two trenches was broadly similar. Following the excavation of a machine sondage in Trench 6 (Fig. 3) the natural gravel was observed at a depth of 2.20 m below the surface of the existing ground level at *c*.56.60 m OD. Overlying the gravel in Trench 6 was a layer of reddish-brown sandy-silt (601) 1.85 m thick. The equivalent layers in Trench 8 (801, 802 and 803), which were broadly similar to each other and to layer 601, were partially excavated to a depth of 1.30 m. Sealing these layers were the modern surface deposits. Two sherds of pottery were retrieved from Trench 8. One sherd was post-medieval and was abraded whilst the other was modern. The retrieval of these finds from layer 803 suggests that the layers resulted from re-deposition.

Overlying layer 601 was layers 602 and 603 consisting of gravelly-silt and representing modern re-deposition with a total depth of 0.90 m. These were in turn overlain by the modern surface.

5.1.4 *Trenches 9 and 10*

Trenches 9 and 10 were located on the higher of the two tennis court areas. Trench 9 (Fig. 4) was 10 m long and was orientated east to west. Trench 10 was 15 m long and was orientated north to south. The vertical stratigraphy within the two trenches was broadly similar. The natural soil (901 and 1001) in Trenches 9 and 10 consisted of gravel with frequent patches of sandy-clay and was locate at a depth of between 1 and 1.10 m below the existing ground level or *c*.60.20 m OD. Overlying the natural gravel were 1003 and 903, each consisting of a light yellowish-brown and orange sandy-silt with a frequent gravel inclusion. In Trench 9 layer 903 was 0.65 m thick and in Trench 10 it was 0.67 m thick. Cut through the surface of layer 1003 was a modern service pipe which continued through the natural gravel at the base of the trench. Overlying deposits 1003 and 903 was the material forming the existing modern surface. No archaeological deposits were exposed during the excavation of the trench.

5.1.5 *Trench 11* (Fig. 4)

Trench 11, measuring 10 m long was positioned parallel to the east side of the pavillion and orientated north to south. The natural gravel (1101) representing the Summertown-Radley second gravel terrace, was observed at the base of the trench at a depth of 61.65 m OD. Although a slight slope to the north-west was observed, no archaeological features were present. Overlying the gravel was layer was a yellowish-brown sandy-silt (1102) measuring 0.60 m at the north end and tapering to 0.05 m at the south end. Overlying 1102 was 1103, a greyish-brown sandy-silt 0.35 m thick. This was in turn overlain by a yellowish-orange clayey-silt (1104) 0.25 m thick. The layer tapers off towards the north end of the trench. Overlying 1104 and 1103 was a reddish-brown sandy-silt (1105) 0.40 m thick. This was overlain by the modern topsoil.

Layers 1102 and 1103 represent the earliest worked soils possibly associated with former cultivation in the area. Layers 1104 and 1105 appear to represent soils associated with the latest cultivation perhaps of post-medieval origin, although it is possible that they were re-deposited at a later date with the creation of the current sports fields to the east and north-east. No archaeological deposits were observed within the trench.

5.2 Finds

Finds retrieval was limited to two sherds of post-medieval and modern pottery residually deposited within Trench 8. No further finds were retrieved during the evaluation.

5.3 Environmental data

No suitable waterlogged or charred remains deposits were encountered during the evaluation.

6 DISCUSSION AND INTERPRETATION

6.1 Reliability of field investigation

The results of the evaluation show that there has been little or no later disturbance. There is a slight possibility that creation of the car park in the lower area of the site to the west may have involved the removal of underlying deposits, but the presence of a dark silty-clay layer immediately above the stiff blue/grey clay (Trenches 1, 2, 3 and 4) and the prevailing high water level above the clay, suggests that the car park was built on raised ground. The thick layer of rubble below the tarmac tends to support this hypothesis.

Trenches 5, 9, 10 and 11 show no later disturbance or truncation apart from Trench 10 where a modern service pipe trench was exposed orientated obliquely across the trench in a south-west to north-east direction.

Only Trenches 6 and 8 on the lower tennis courts indicate an area in the development site where truncation may have occurred and may have resulted in the removal partial or otherwise, of archaeological deposits. The existing tennis courts are terraced. This creation of the terraced tennis courts may originally have been designed to follow the natural slope of the local topography.

6.2 Overall interpretation

6.2.1 Summary of Results and Significance

No archaeological deposits were observed during the evaluation. The results of the evaluation therefore suggests that no settlement occupation of any period is present within the proposed area of development. No significant areas of archaeological potential were observed during the evaluation. In the absence of any archaeological deposits exposed during the evaluation and the paucity of residual finds (two sherds only) retrieved from the spoil during the excavation of the trenches, it is unlikely that there are any settlement features of any period located within the evaluated area.

6.2.2 Impact of development

The construction of the new sports centre will involve the excavation of new foundations. These will consist of vertical piling topped by pile caps rather than strip foundations due to the high water table and potential problems associated with flooding. Areas around the piles will generally be excavated to a depth of *c*.0.50 m below the existing ground level. The results of the evaluation suggests that any surviving archaeological deposits, if present, would be expected to lie below this level.

In the area of the existing car park on the south side of the present sports centre it is proposed to raise the ground level by *c*.1m thickness and to excavate the areas of the pile caps to *c*.0.50 m below the existing ground level or *c*.1.50 m below the level of the made up ground. The results from trenches 1, 2, 3, 4 and 7 suggests that there is a minimum 1.50 m thickness of overburden including the stiff blue/grey clay which may represent an alluvial deposit overlying the natural gravel. Bore holes 1, 2 and 3 in the lower west side of the area in the existing car park identified the surface of the natural gravel at a depth of between 1.10 and 1.30 m below the current tarmac surface. Since the impact level of development appears to be situated above the level of the natural gravel it is unlikely that any archaeological deposits, if present will be impacted by the proposed development. The development design incorporating piling and pile caps is unlikely to disturb anything other than made up ground since development is intended to penetrate the existing ground level by only *c*.0.50 m. According to the bore hole information the surface of the natural gravel where potential archaeological deposits may survive would be a further 0.60 m below the level of impact.

In the eastern area of the proposed development, on the higher ground in the area of the existing tennis courts, there will be some penetration of the natural gravel resulting from the construction of the pile caps connected with the foundations. Any potential

archaeological deposits situated in this area of the development that were not anticipated by the evaluation will be impacted during the piling process.

Bibliography and references

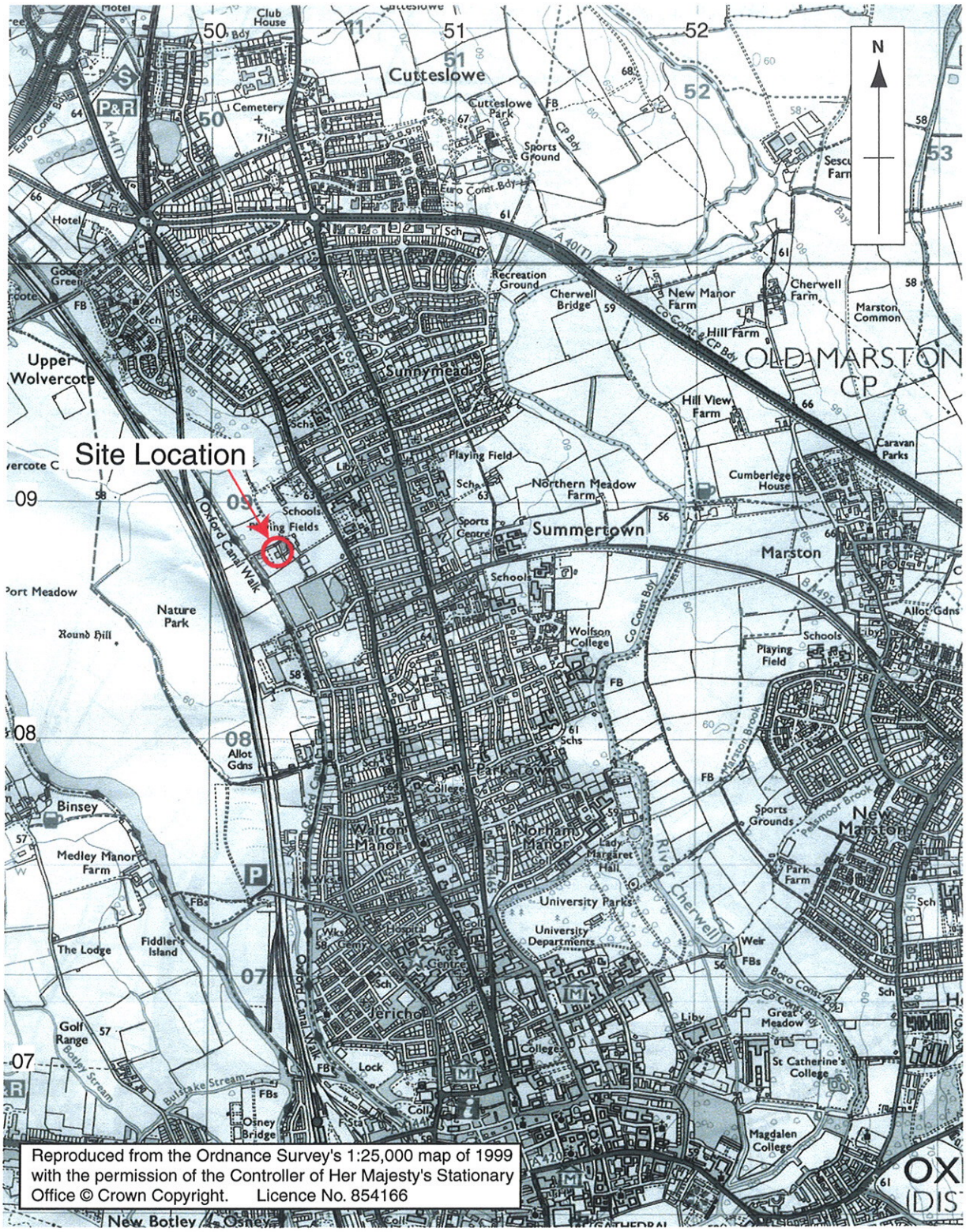
Wilkinson, D (ed) 1992 — *Oxford Archaeological Unit Field Manual*, (First edition, August 1992)

Vooght, D 1999 — *Report on a Site Investigation at Woodstock Road, Oxford for BWB Partnership*. Southern Testing Laboratories Limited.

Appendix 1 Archaeological Context Inventory

Ctxt	Type	width (m)	thick. m)	Comment	Finds	No.	Date
Trench 1							
100	Layer		0.20	Carpark tarmac			Modern
101	Layer		0.40	Modern rubble			
102	Layer		0.20	Earlier soil			
103	Layer		Unclear	Natural clay / alluvium ?			
Trench 2							
200	Layer		0.20	Carpark tarmac			Modern
201	Layer		0.40	Modern rubble			
202	Layer		0.20	Earlier soil			
203	Layer		Unclear	Natural clay /alluvium ?			
Trench 3							
300	Layer		0.20	Carpark tarmac			Modern
301	Layer		0.40	Modern rubble			
302	Layer		0.20	Earlier soil			
303	Layer		Unclear	Natural clay / alluvium ?			
Trench 4							
400	Layer		0.20	Carpark tarmac			Modern
401	Layer		0.40	Modern rubble			
402	Layer		0.20	Earlier soil			
403	Layer		Unclear	Natural clay / alluvium ?			
Trench 5							
501	Layer			Natural gravel			
502	Layer		0.45	Weathered natural			
503	Layer		0.35	Re-deposited soil			Modern ?
504	Layer		0.30	Re-deposited soil			Modern ?
505	Layer		0.26	Topsoil			
Trench 6							
601			1.90	Re-deposited soil			modern
602			0.22	Modern fill			
603			0.35	Modern fill			
604			0.10	Modern fill			
605			0.11	Tarmac bedding			
606			0.15	Tarmac			
607				Natural gravel			

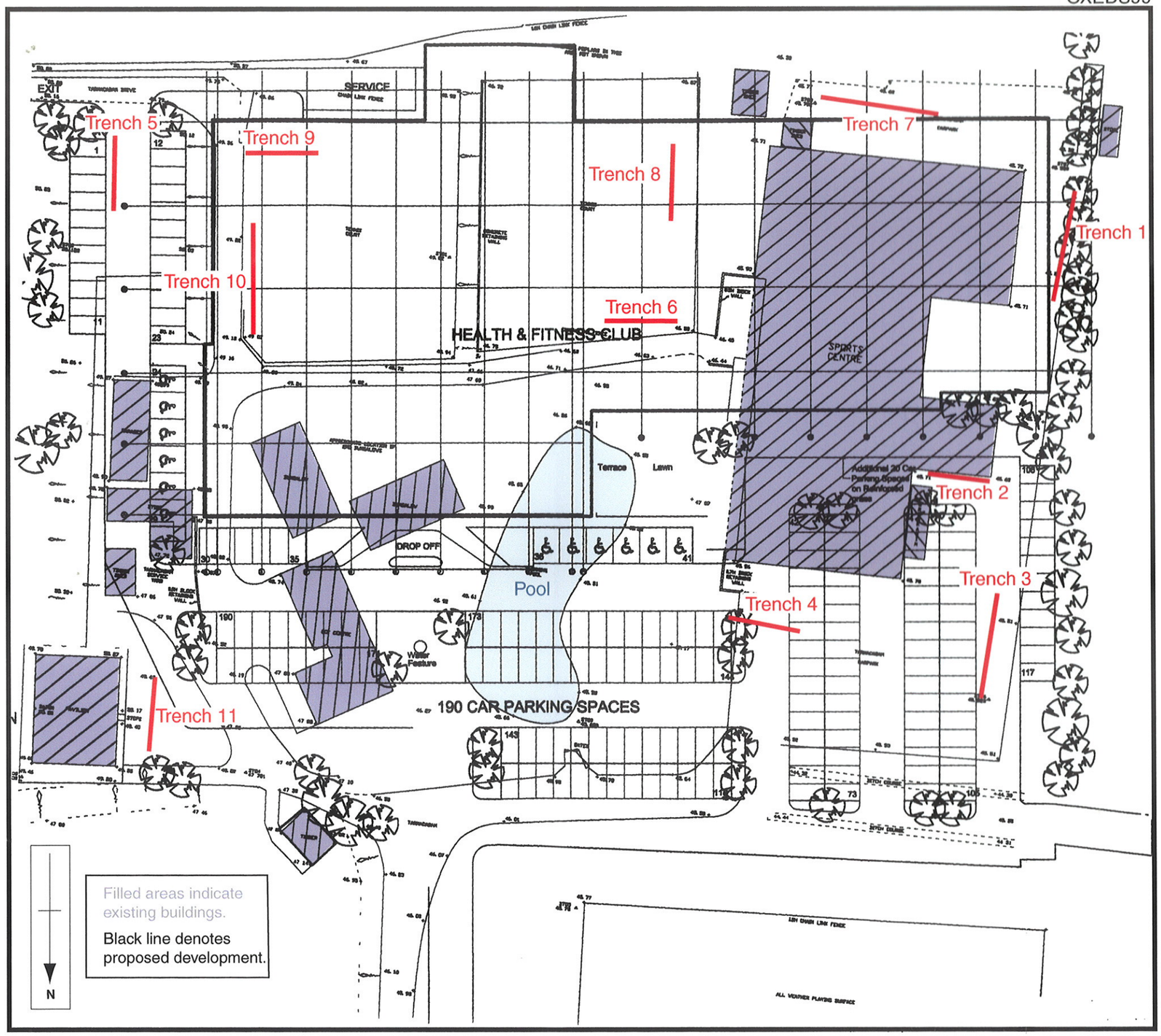
Ctxt	Type	width (m)	thick. m)	Comment	Finds	No.	Date
Trench 7							
700	Layer			Tarmac			
701	Layer		0.56	Mixed soil			Modern ?
702	Layer			Natural clay ?			
Trench 8							
801	Layer		unclear	Re-deposited soil ?			
802	Layer		0.25	Re-deposited soil ?			
803	Layer		0.61	Re-deposited soil ?	Pot		Modern
804	Layer		0.15	Tarmac bedding			
805	Layer		0.10	Tarmac bedding			
806	Layer		0.15	Tarmac			
Trench 9							
901	Layer			Natural gravel/clay			
902	Layer			Natural gravel/clay			
903	Layer		0.65	Re-deposited soil ?			
904	Layer		0.14				
905	Layer		0.10	Tarmac bedding			
906	Layer			Tarmac			
Trench 10							
1001	Layer			Natural gravel/clay			
1002	Layer			Natural gravel/clay			
1003	Layer		0.67				
1004	Layer			Tarmac bedding			
1005	Layer			Tarmac bedding			
1006	Layer		0.16	Tarmac			
Trench 11							
1101	Layer			Natural gravel			
1102	Layer		0.60	Earlier worked soil			
1103	Layer		0.17	Earlier worked soil			
1104	Layer		0.15	Later worked soil			
1105	Layer		0.40	Later worked soil			
1106	Layer		0.12	Topsoil			



0 500 2500 m

scale 1:25 000

Figure 1 : site location



scale 1:600

Figure 2 : Trench Location

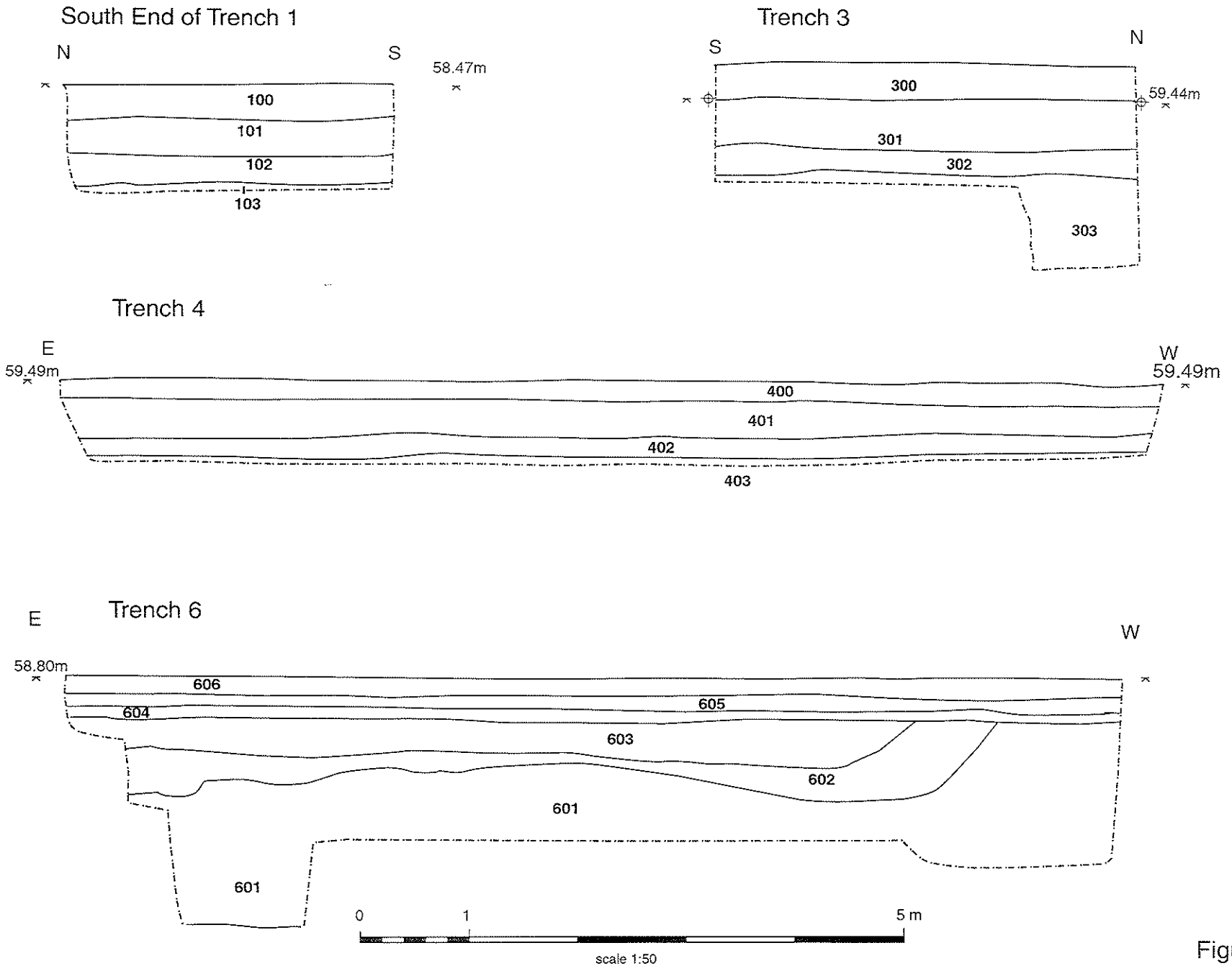

South End of Trench 1
N
S
58.47m
100
101
102
103
Trench 3
S
N
300
59.44m
301
302
303
Trench 4
E
59.49m
W
59.49m
400
401
402
403
Trench 6
E
W
58.80m
606
605
604
603
602
601
601
0
1
5 m
scale 1:50

Figure 3

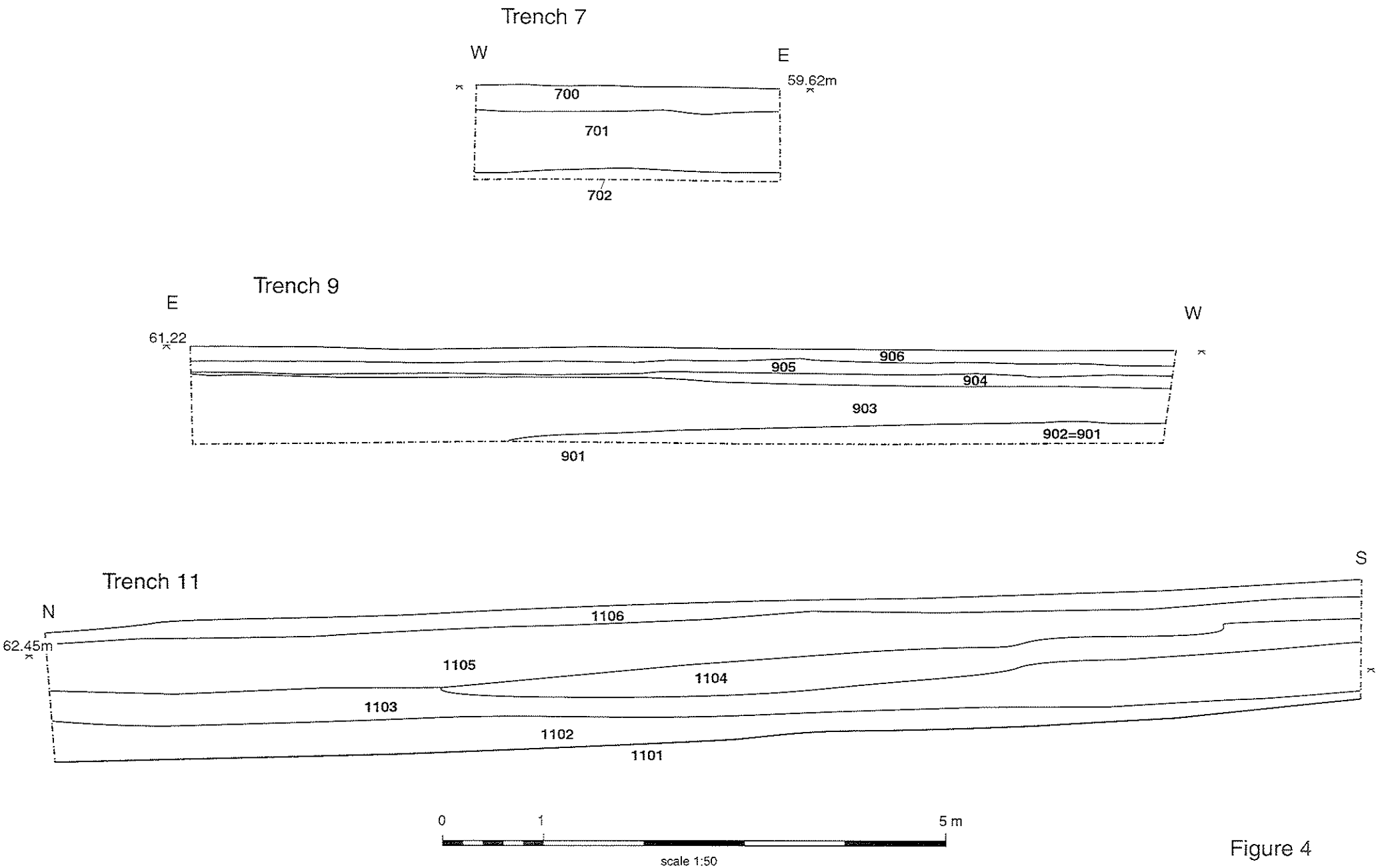

Trench 7
W
E
59.62m
700
701
702
Trench 9
E
W
61.22
906
905
904
903
902=901
901
Trench 11
N
S
62.45m
1106
1105
1104
1103
1102
1101
0
1
5 m
scale 1:50

Figure 4

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