

# King Edward VII Car Park Extension Windsor Berkshire



## Archaeological Watching Brief Report



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**Client: Royal Borough of Windsor and  
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# King Edward VII Car Park Extension, Windsor, Berkshire

## *Archaeological Watching Brief Report*

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## Summary

*In February and March 2012 Oxford Archaeology undertook a watching brief during the construction of an extension to the King Edward VII car park and associated works, Windsor (NGR: centred at SU 972 779). The work was sited in the vicinity of the "Maestricht Garden", which was started in 1712 never completed. Superimposition of the present day plan of the area over the proposed plan of the Maestricht Garden showed that the site of the car park extension partially overlay the eastern edge of the garden. Possible evidence for the north-south avenue running along the eastern edge of the garden was observed in the form of isolated gravel and chalk deposits running across the western edge of the car park. These had been heavily disturbed, making determination of any possible alignment or assessing whether the avenue had been completed very difficult.*

*The remainder of the works recorded evidence of 18th/19th century soils overlying natural deposits, possibly indicating either cultivation or levelling and landscaping. No evidence for archaeology pre-dating the the 18th century was observed during the course of the watching brief.*

## 1 INTRODUCTION

### 1.1 Scope of work

- 1.1.1 Oxford Archaeology (OA) was commissioned by Royal Borough of Windsor and Maidenhead Environmental Services Directorate to undertake a watching brief on construction work within the Home Park, Windsor, Berkshire, centred at NGR: SU 972 779. The work consists of a proposed extension to King Edward VII car park and the formation of a vehicular access track from the car park extension to Prince Albert's Walk within the park grounds.
- 1.1.2 The work was undertaken as a condition of Planning Permission (planning ref: 11/02829). Although the Local Planning Authority did not set a brief for the work, discussions with Fiona MacDonald of Berkshire Archaeology established the scope of work required and OA produced a Written Scheme of Investigation (WSI) showing how it would implement those requirements (OA 2012).

### 1.2 Location, geology and topography

- 1.2.1 The area of the proposed development lay within the grounds of the Home Park, immediately to the north-east of the existing King Edward VII pay-and-display car park on the southern side of King Edward VII Avenue, Windsor, Berkshire (Fig. 1) at a height of approximately 19m above Ordnance Datum. The River Thames curves around the Home Park approximately 420m to the west, 620m to the north and 570m to the east of the site. A small stream crosses the Home Park to the south of the development area.
- 1.2.2 The car park extension is currently bordered by a coniferous hedge and King Edward VII Avenue to the north, mature trees and parkland to the north-east and south, and King Edward VII car park to the south-west. The vehicular access track will extend from the north-eastern end of the car park extension and bends to a NW-SE orientation, crossing through an area of parkland and trees, and terminating in a junction with Prince Albert's Walk.



- 1.2.3 The bedrock geology of the area is Seaford chalk formation and Newhaven chalk formation. Superficial geology consists of Shepperton gravels (British Geological Survey <http://maps.bgs.ac.uk/geologyviewer>). Previous investigation by Oxford Archaeology in 2005 within the Home Park, immediately south of the current proposed development, stated that areas of alluvium were present across the park. This alluvium, ranging in thickness from 0.12-0.65m, appears to be derived from periodic flooding across low lying areas of the gravel terrace. During the 2005 investigations, the natural gravel was encountered at varying depths between 0.3-1.1m below current ground level (OA 2005).

### 1.3 Archaeological and historical background

- 1.3.1 An archaeological and historical assessment of the development area was undertaken by AOC (2004) and OA (2005) in association with the development of the showground for the Windsor Horse Show in 2004/5. The results of these assessments are briefly summarised below
- 1.3.2 The site lies on the low lying floodplain of the River Thames. The stream running through the Home Park to the south of the development area may suggest that the area was once a low lying gravel island. Extensive multi-period prehistoric and Roman settlements have been recorded on a similar gravel island 4km upstream at Eton Rowing Lake. Other sites situated in similar topographic locations within the surrounding area include Eton Wick causeway enclosure, King Stable Street and Agars Plough, Eton. These prehistoric and Roman sites are either cut into the terrace gravels and sealed by river alluvium, or occur within silting in Holocene lakes and pools. These remains are generally found at a depth of 0.4-0.7m below ground level.
- 1.3.3 The development area is situated within the Home Park which is a Grade I Registered Park and Garden within the Royal Estate, Windsor. It is situated to the north-east of the Scheduled Ancient Monument of Windsor Castle, which has its origins in the 11th century. The park is currently largely pasture with areas of landscaping and a network of drives providing access to Frogmore House, Shaw Farm, Home Farm and the Royal Gardens.
- 1.3.4 Land comprising the Home Park has been enclosed as parkland for over 600 years. Its current form is the result of numerous additions of land over the years. The area was originally known as the Little Park, to distinguish it from the much larger area of the Great Park to the south. Although its origins are unclear, it is documented that in 1368 King Edward III enclosed part of the low ground to the north of the castle and appointed Geoffrey de Denham to the charge of 'the Little Park under the castle'. Seven years later 15 acres of land on the higher level (Uppenore, including 'The Quarrie' immediately to the east of Windsor Castle) were added to the park (Roberts 1997).
- 1.3.5 During the 1460s further land was added. This included the majority of the present park to the east and south-east of the Castle and the low area to the north utilised by Edward IV for deer coursing (Roberts 1997).
- 1.3.6 In Norden's survey of the Honor of Windsor, dated 1607, the development area is shown as farmland. This area was brought into the park during its redesign after the Civil War in the 1670s. It was during this development that the diagonal rides and walks though the park were added. Queen Ann attempted to address the lack of a formal garden at Windsor by instructing Henry Wise to begin work on the Maestricht Garden below the north terrace in 1712, but this was never completed, although evidence for its layout can be observed in aerial photographs of the Home Park.





- 1.3.7 The road to the immediate north of the car park, now known as King Edward VII Avenue, was constructed during improvement work brought about by the 1848 Windsor Improvement Act. The park has remained relatively unchanged from this point to the present day (Roberts 1997).
- 1.3.8 The only known previous archaeological investigation was undertaken in 2005 by OA. A watching brief was maintained during the construction of a new dressage arena and practice arena as part of the work to relocate the Windsor Horse Show within the grounds of the Home Park. These works were situated approximately 300m south-east of the proposed extension to the King Edward VII car park.
- 1.3.9 During the watching brief, five 1x1m test pits were excavated within the footprint of the dressage arena and one within the footprint of the practice arena. Excavation of drainage trenches and topsoil stripping with the arenas and along the route of the haul road were also monitored. The watching brief revealed riverside terrace flood deposits sealed by modern topsoil. A possible prehistoric curvilinear ditch or natural channel was observed in one of the test pits in the centre of the dressage arena. The feature was 0.33m wide and 0.18m deep and filled with a dark orange-brown silty clay.
- 1.3.10 A possible prehistoric ditch measuring 0.5m in width and 0.4m in depth was observed within a drainage trench some 20m south-east of the dressage arena. The ditch cut the terrace gravels and was sealed by alluvial clay.
- 1.3.11 At the south end of Grenadier Avenue, a 0.8m wide and 0.63m deep ditch was recorded in another section of drainage trench. This ditch cut the alluvial clay and was filled with a dark yellow brown clay with chalk flecking.
- 1.3.12 The lack of dating evidence and limited areas of investigation meant that some uncertainty remained over the nature and date of the features. The only finds recovered during the investigation dated to the 19th or 20th century and were confined to the ploughsoil.

## 2 PROJECT AIMS AND METHODOLOGY

### 2.1 Aims

2.1.1 The general aims and objective of the watching brief were:

- to mitigate the effect of the development on any surviving buried archaeological remains through a programme of archaeological monitoring, investigation and recording, analysis of the excavated data, publication of the results through a grey-literature report, and deposition of an ordered project archive with a local museum ('preservation by record');
- to enable the archaeological data from the site to be placed in its local, regional and national context.

### 2.2 Methodology

2.2.1 The watching brief was maintained during all groundworks with the potential to adversely impact upon archaeological remains within the development area. These works consisted of:

- overburden removal across the 55m x 15.6m extension to the north-eastern end of the existing King Edward VII car park. The ground reduction varied in depth between 0.35m and 0.6m, with deeper excavations for drainage;





- the excavation of an approximate 70m length of trench to accommodate security bollards along the south-eastern and eastern edge of the car park extension;
- overburden removal to a depth of approximately 0.4m during construction of the vehicular access track. The track will be approximately 200m long and 5m wide. (See Fig 2).

2.2.2 The work was undertaken in three distinct phases:

- the excavation of the new bollard trench;
- the ground reduction for the new car park extension;
- and the excavation for the new access road.

### 3 RESULTS

#### 3.1 Introduction

3.1.1 Each phase of work will be discussed separately followed by an overall discussion and conclusion.

#### 3.2 The Bollard Trench

3.2.1 The bollard trench was excavated along the southern and eastern sides of the car park extension in order to accommodate a concrete ground beam containing steel bollards. The trench measured a total of 60m in length, was 0.6m wide and was excavated to a depth of between 0.4m and 0.8m using a mini-digger fitted with a toothless bucket (Fig. 3).

3.2.2 The base of the trench was roughly level throughout its length.

3.2.3 At the western end of the trench a layer of yellow-brown silty clay alluvium (4) was exposed in the base of the trench (Sections 1 and 2). Overlying this deposit were isolated lenses of chalky material (3), approximately 0.1m deep and 3m wide (Sections 1 and 3). A layer of grey-brown silty clay loam (2) between 0.15m and 0.2m in depth overlaid both deposits 3 and 4 and could be seen in section for over 35m along the trench length (Sections 1, 2, 3 and 4). This deposit contained chalk flecking and produced fragments of roofing tile suggesting that it may have been worked. The present day topsoil (1), composed of a dark grey-brown clay loam and leaf litter ran the length of the trench.

3.2.4 At the eastern end of the trench the underlying terrace gravel (6) was exposed in the base of the trench (Sections 5 and 6). Evidence of a probable tree throw hole (8) and its fill (7) were recorded within this layer. Overlying this layer was a 0.2 m deep layer of grey-brown clay silt (5), similar to layer 2, but containing a larger percentage of gravel inclusions possibly reflecting the change in the underlying natural.

#### 3.3 Car Park Ground Reduction

3.3.1 As part of the work it was proposed to lay a foundation of compacted stone to form the carpark surface. In order to accommodate this it was necessary to reduce the ground level between 0.35m and 0.5m within this area.

3.3.2 This work was accomplished using a tracked excavator using a 1.2m wide bucket fitted with guarded teeth.



- 3.3.3 At the eastern edge of the area a continuation of the underlying terrace gravel (12) was exposed within the base of the excavation (Fig. 5, Section 7). Irregularities within this deposit were consistent with tree throw holes. Overlying the gravel was a mixed layer of gravel and soil (11), 0.1m in depth. Above this layer was a 0.25m deep layer of grey-brown silty loam (10), a probable continuation of layer 2 observed within the bollard trench.
- 3.3.4 Layer 10 tapered off towards the west (not shown in section) running out over a deposit of light brown silty clay (13) containing chalk flecking and numerous fragments of tile and brick together with occasional sherds of 18th /19th century pottery (Fig. 5, Section 8).
- 3.3.5 At the western edge of the carpark a layer of grey-brown clay loam (14) was exposed (Fig. 5, Section 11). This deposit contained areas of chalk concentrations together with lenses of fine clean gravel and orange-brown clay. It also contained many fragments of brick and tile.
- 3.3.6 Layers 13 and 14 together with layer 10 were covered by a 0.3m deep layer of grey-brown clayey silt loam (9), a continuation of layer 1.
- 3.3.7 Also undertaken as part of this work was the excavation of three soakaway pits each approximately 2m square by 3m deep (Fig. 3). The stratigraphy exposed in the easternmost pit was identical to that recorded within section 7. Within the central pit (Fig. 5, Section 9) the terrace gravel 12 was observed at a depth of 0.6m below the original ground level. This was overlaid by layer 13, in excess of 0.3m in depth.
- 3.3.8 The western soakaway pit encountered the terrace gravel 12 at a depth of 0.7m below the original ground level (Fig. 5, Section 10). This was overlaid by a continuation of layer 13, 0.25m in depth. Above 13 was the reduced layer 14,

### **3.4 The Vehicular Access Track**

- 3.4.1 This track ran from the eastern end of the car park extension and curved away to the south before joining Prince Albert's Walk, a distance of approximately 200m. The average width of the track was 2m and it was excavated to a depth of between 0.25m and 0.4m (Fig. 2).
- 3.4.2 Although the full length of this excavation was not monitored the stratigraphy observed within this excavation was similar to that recorded within sections 5 and 6, with the deeper parts of the excavations exposing the terrace gravel, 12, while the remainder of the work was contained within layers 1 and 5.

### **3.5 Finds**

- 3.5.1 Fragments of brick and tile were recovered from layers 1, 2, 4, 13 and 14 together with three fragments of pottery from layer 13. All the dating evidence recovered can be provisionally dated to the 18th and 19th centuries.

### **3.6 Environmental remains**

- 3.6.1 No deposits suitable for palaeo-environmental sampling were observed during the course of the watching brief.

## **4 DISCUSSION AND CONCLUSIONS**

- 4.1.1 The watching brief demonstrated that the terrace gravel, 12, extended throughout the site forming a level floodplain.



- 4.1.2 No deposits producing evidence pre-dating the 18th century were observed during the course of the watching brief. It is possible that prior to improvements to the Thames navigation during the 18th and 19th centuries, which would have regulated the water level within the Thames, the area was prone to flooding limiting its use to grazing or water meadows. Although there are references to the area being farmed in the 17th century these do not specify what the land was used for.
- 4.1.3 The historical and archaeological background stated that the proposed works were located in the vicinity of the “Maestricht Garden” designed by Henry Wise in 1712. Although the records state that it was never finished, its outlines can be seen on aerial photographs of the Home Park taken in August 1964, suggesting that a substantial part of the work had been undertaken. Overlaying a plan of the current works over the plan of the proposed garden drawn by Henry Wise in 1712 (Fig. 6), shows that the western edge of the car park extension covers part of the eastern avenue.
- 4.1.4 Along the western edge of the carpark extension a layer of mixed garden soil (14) together with lenses of fine gravel and chalk inclusions was observed. The boundary of this layer appears to match both the alignment and position of the eastern avenue. The composition of this deposit may indicate that the avenue was constructed using compacted chalk imported from elsewhere overlaid by fine gravels. The mixed nature of the present day deposit suggests that either the path had not been finished, or that it was stripped out when the 1848 improvements to the park were undertaken. The drawing also suggests that the garden was to have been surrounded by a brick wall. However no evidence for this being completed within this part of the garden either in the form of a foundation trench or of demolition material were observed.
- 4.1.5 The widespread deposits of what appears to be worked material or a possible buried soil horizon (layers 2, 5 and 13) are very similar and may be continuations of the same deposit. An alternative suggestion is that these deposits represent imported material used to level or landscape the area prior to the final topsoil layer, possibly during the 1848 improvements. It is unclear which of these is the case. Fragments of tile and brick do occur within worked soils where demolition debris (in particular the lime mortar) has been spread on arable land in order to improve soil structure.



## APPENDIX A. ARCHAEOLOGICAL CONTEXT INVENTORY

Context	Type	Depth (m)	Width (m)	Length (m)	Comments	Finds	Date
1	Layer	0.17 – 0.22	-	-	Modern topsoil	Brick	C20th
2	Layer	0.15 – 0.2	-	-	Buried soil horizon	Tile	
3	Layer	0.1	-	2	Lens of redeposited chalk	-	-
4	Layer	. 0.1	-	-	Possible flood deposits	Tile	
5	Layer	0.22	-	-	Buried soil horizon	-	
6	Layer	> 0.35	-	-	Terrace gravel	-	-
7	Fill	0.22	1.6	1.6	Fill of tree throw hole 8	-	-
8	Cut	0.22	1.6	1.6	Tree throw hole	-	-
9	Layer	0.3	> 14	> 50	Present day topsoil and turf	-	C20th
10	Layer	0.25	> 14	< 25	Buried soil horizon	-	-
11	Layer	0.11	> 14	< 25	Transition layer, bioturbation ?	-	-
12	Layer	> 0.15	> 14	> 25	Terrace gravel, natural	-	-
13	Layer	> 0.1	> 14	> 25	Buried soil horizon	Pot, brick, tile	C18th/ C19th
14	Layer	0.3	> 12	> 14	Possible remnants of a north-south avenue belonging to the Maestricht Garden.	Tile	C18th



## APPENDIX B. BIBLIOGRAPHY AND REFERENCES

- AOC, 2004                    *An Archaeological Desk Based Assessment of the proposed new location for the Windsor Horse Show, Windsor Castle*
- OA, 2005                    *Royal Windsor Horse Show, Home Park, Windsor Castle, Berkshire. Archaeological Watching Brief Report*
- OA, 2012                    *King Edward VII Car Park Extension, Windsor, Berkshire: Written Scheme of Investigation*
- Roberts, J 1997            *Royal Landscape: The Gardens and Parks of Windsor* Yale University Press



## APPENDIX C. SUMMARY OF SITE DETAILS

Site name:	King Edward VII Car Park Extension, Windsor, Berkshire
Site code:	WEDKING 12
Grid reference:	Centred at NGR SU 972 779
Type of watching brief:	Machine excavation of foundation trench and three soak-a-way pits and machine stripping for a new access road and carpark.
Date and duration of project:	Between February and March 2012. Three site visits
Area of site:	Approximately 0.16 hectares
Summary of results:	No evidence for archaeology pre-dating the the 18th century was observed during the course of the watching brief. Superimposition of the present day plan of the area over the proposed plan of the Maestricht Garden showed that the site of the carpark extension partially overlay the eastern edge of the garden. Possible evidence for the north south avenue running along the edge of the garden was observed in the form of isolated gravel and chalk deposits running across the western edge of the carpark. These had been heavily disturbed making determination of any possible alignment or even if the avenue had been completed very difficult. The remainder of the carpark recorded evidence of 18th/19th century soils overlying natural deposits possibly indicating either cultivation or levelling and landscaping.
Location of archive:	The archive will be temporary stored at Janus House until museum archive space becomes available.

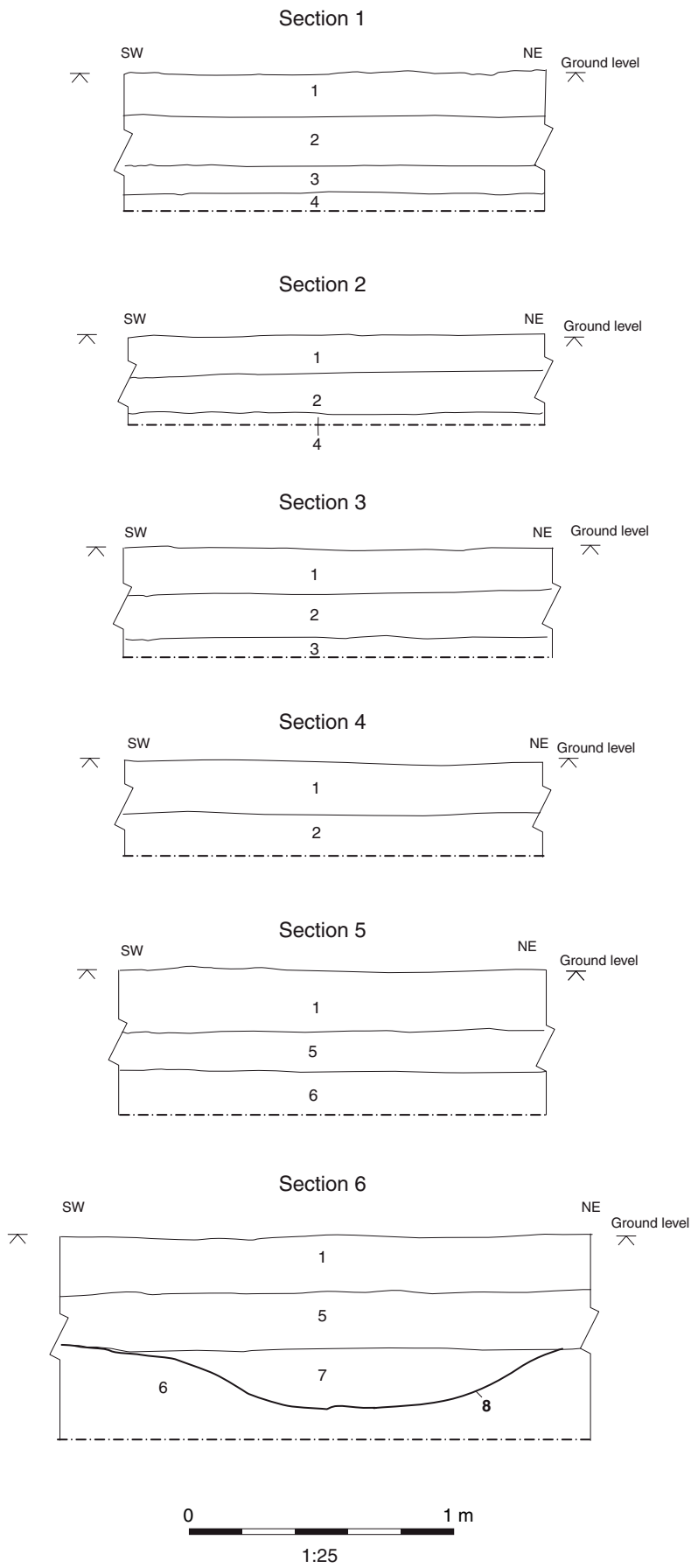


Figure 4: Sections 1-6





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Figure 1: Site location





### Plan 1

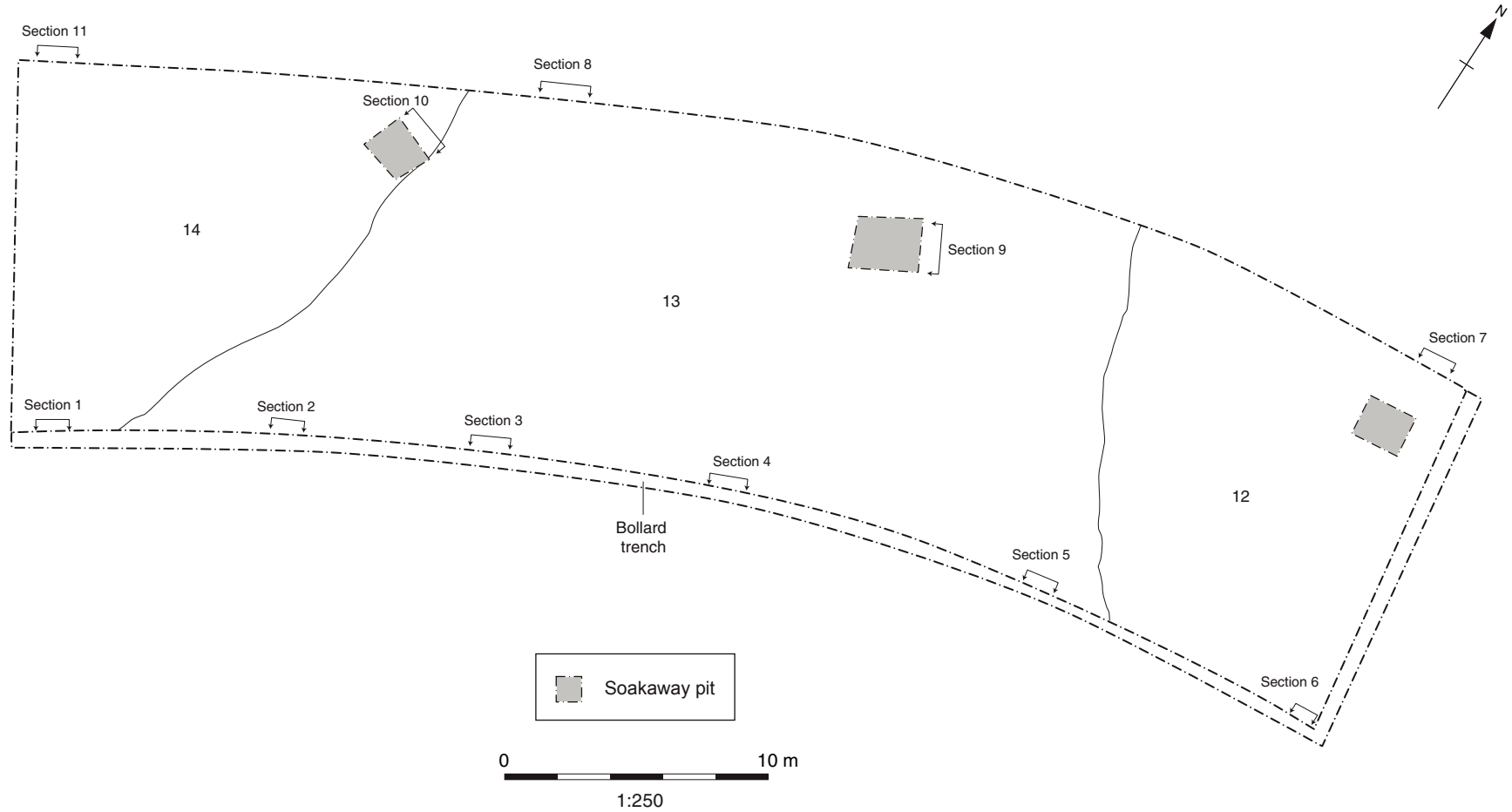


Figure 3: Plan of car park extension

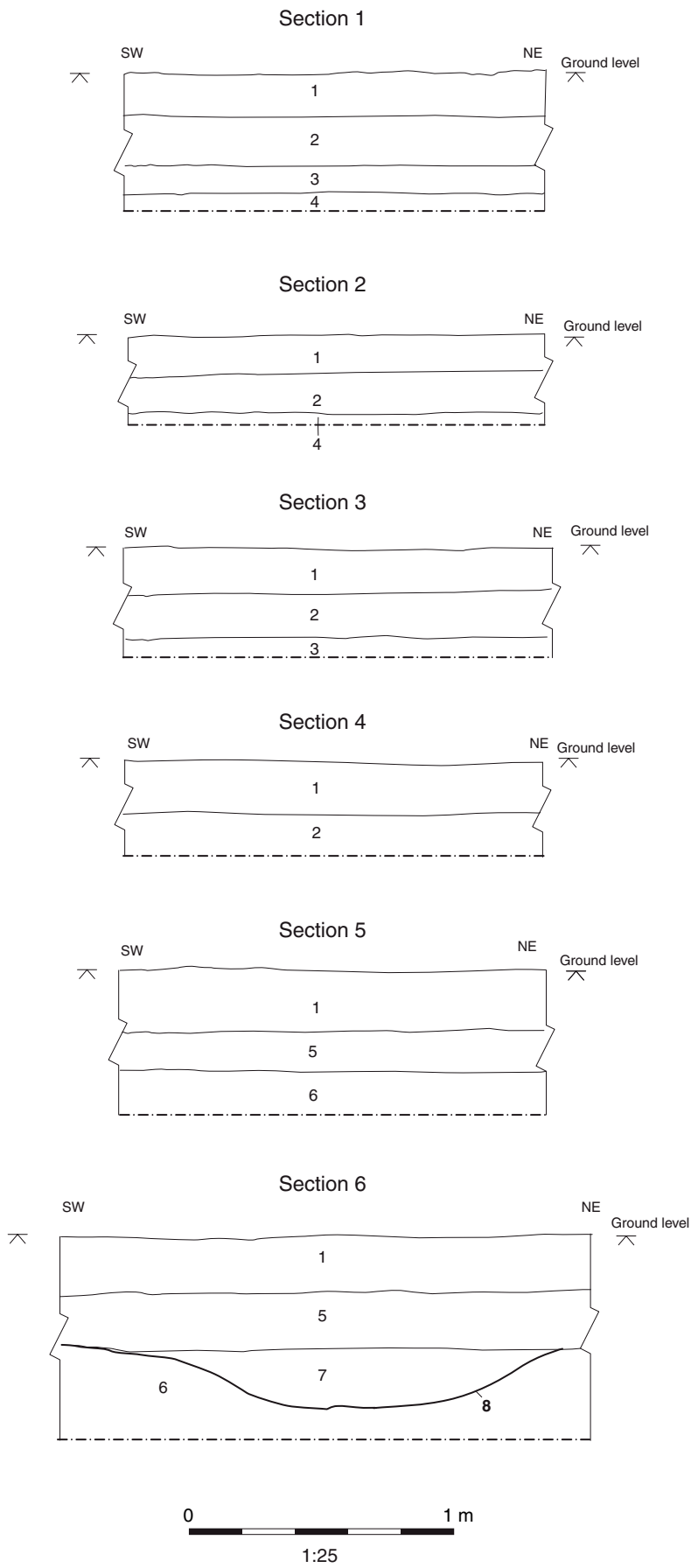


Figure 4: Sections 1-6

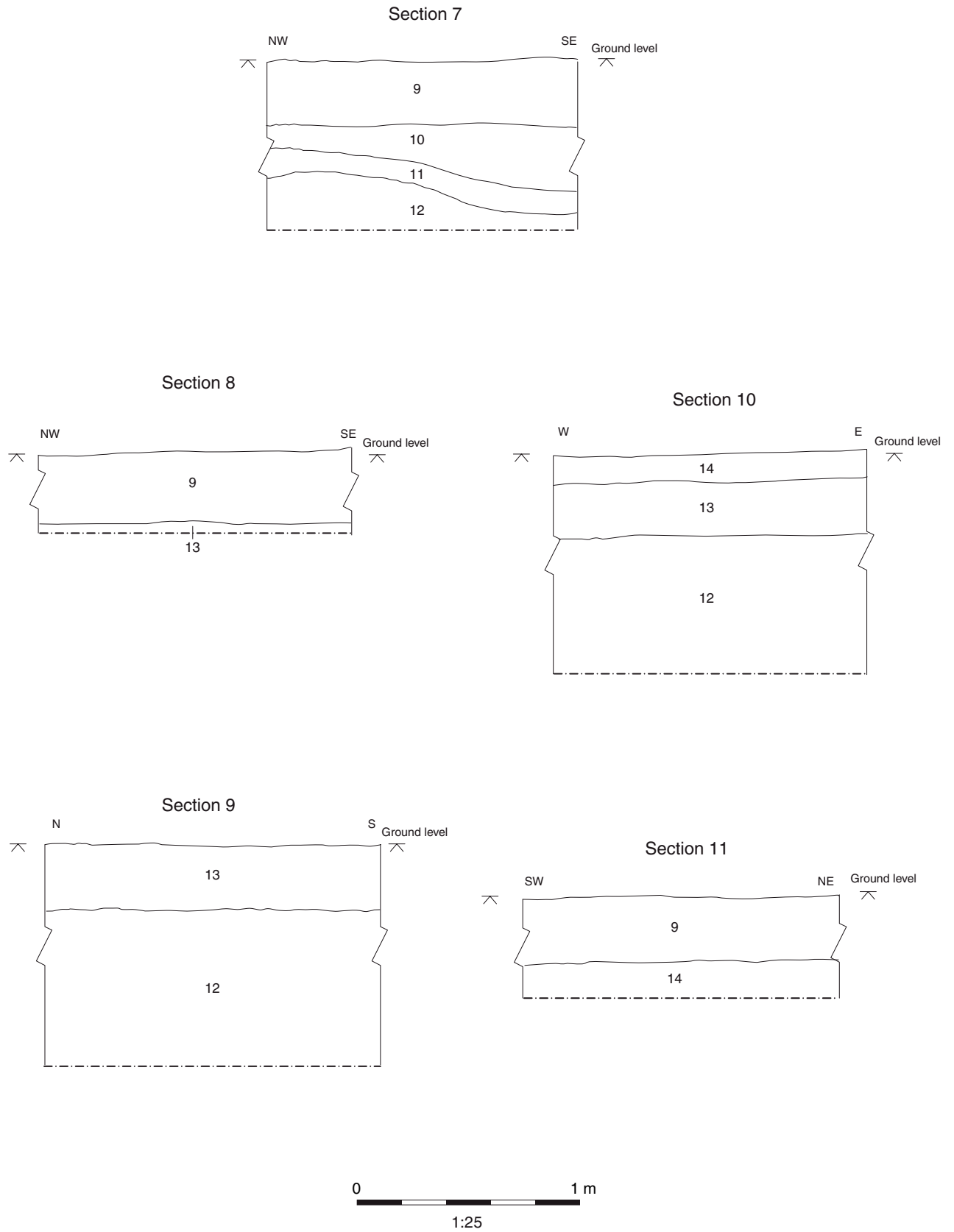
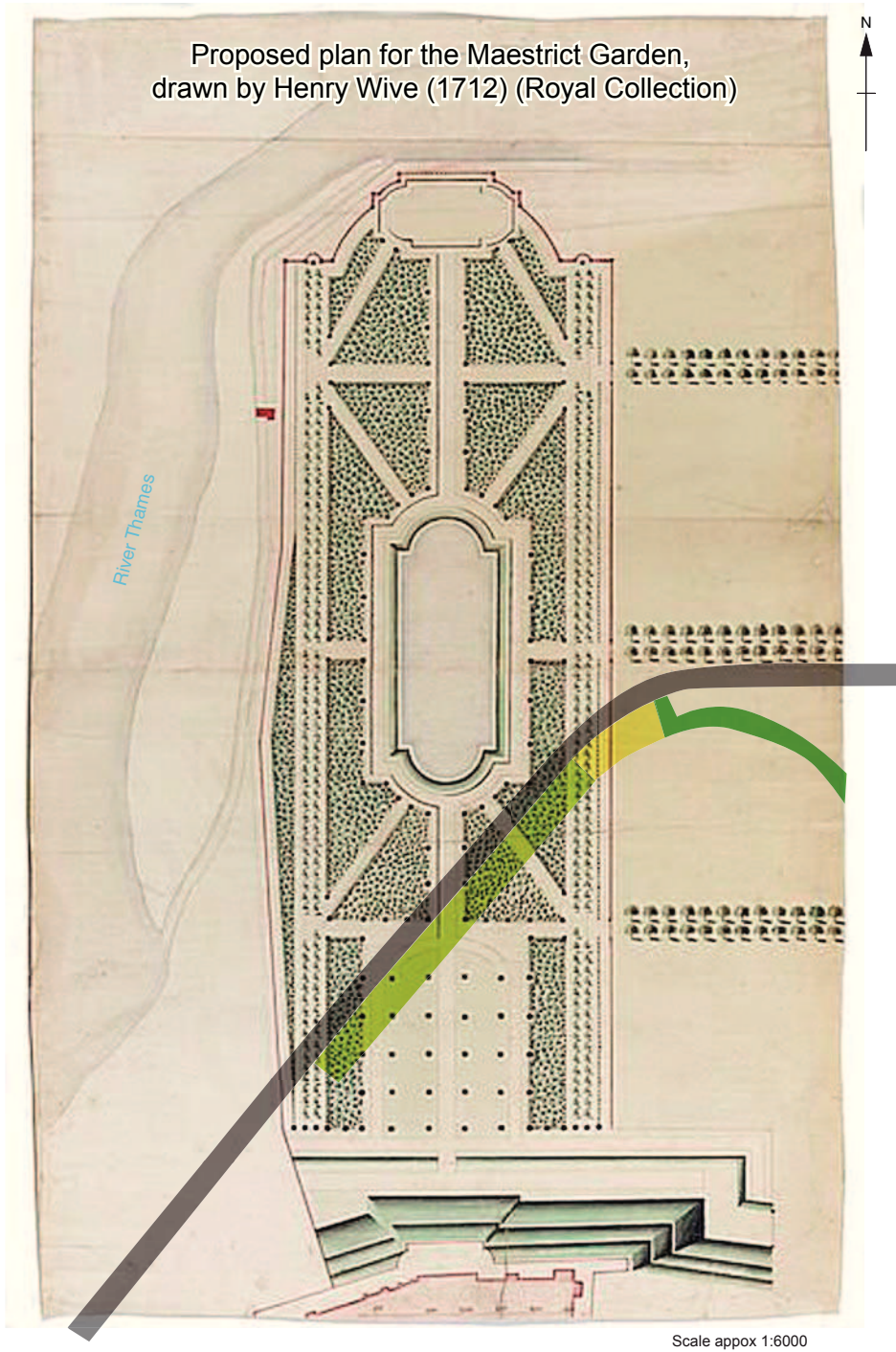


Figure 5: Sections 7-11





- King Edward VII Avenue
- Access Road
- Existing car park
- Extension

Figure 6: The Maestricht Garden showing location of current works