



Westbury Hospital, Wiltshire

Headwall relocation Technical Note

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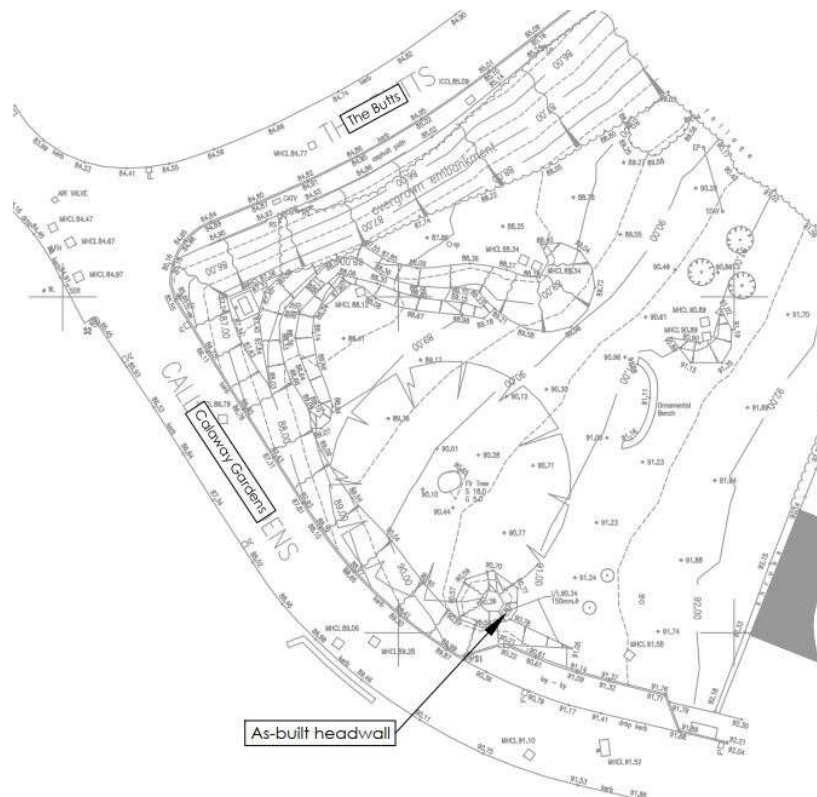
1 Introduction

- 1.1 The following drainage technical note has been produced in support of a headwall relocation design proposal following a query of flooding onto Calaway Gardens Road at Westbury Hospital.

2 Existing arrangement

- 2.1 The As-built headwall survey is shown below in Figure 2.1 which was installed in the incorrect location. It is located south of The Butts Road and north of Calaway Gardens Road. Due to the nature of the topography, surface water runoff collected upstream of the headwall has been found to flow towards Calaway Gardens Road which has been especially noticeable during big storm events towards the tail end of 2023 and beginning of 2024.

Figure 2.1 – As-built headwall location



3 Headwall relocation proposal

- 3.1 Please see in Figure 3.1 below our headwall relocation design proposal. It shows the new headwall location in cyan with supporting earthworks creating a depression suitable for directed flows downhill towards the existing bunding at the bottom of the Public Open Space. The design proposal works with the surrounding constraints as best as possible, avoiding both the root protection area to the left and geocellular storage tank to the right.

Figure 3.1 – Headwall relocation design proposal



4 Conclusion

- 4.1 After receiving a query regarding flooding on the Callaway Gardens Road at Westbury Hospital, we have produced a design proposal to relocate the as-built headwall in order to direct flows more suitably down the Public Open Space towards some existing bunding in line with the original drainage strategy. With regards to the existing outfall depression we have proposed to keep levels at existing as this sits within the RPA. We believe this is the best possible solution considering the surrounding constraints and working with the as-built drainage in the most efficient way possible.