



David Shepherd
Strategic Director Growth and Regeneration
Kirklees Council
Planning and Development Service
PO Box 1720
Huddersfield
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15 July 2025

Ref: Application Number: 2021/62/92801/E

VertaseFLI Limited

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Dear David,

Re: Discharge of Condition 6 – Temporary Drainage Merchant Fields, Cleckheaton

1. Introduction

This letter report has been compiled by VertaseFLI in response to correspondence received from Kirklees Council with regards the recommendation by the Council not to discharge Condition 6 of the above referenced application number. The Council has indicated that a narrative must accompany updated drawings to demonstrate that a risk assessment of flooding and pollution has taken place and that a bespoke method to reduce risk to acceptable levels has been undertaken prior to the commencement of development (including ground works). Harron Homes initially submitted a Surface Water Management Drawing compiled by VertaseFLI (Drawing No.: D1874_23 and dated 05 June 2024) to the local planning authority with intention to discharge Condition 6. However, following review of this drawing by the Council in July 2025, additional information has subsequently been requested.

2. Qualitative Risk Assessment of Flooding and Pollution

When compiling the Surface Water Management Plan (D1874_23), VertaseFLI undertook a qualitative risk assessment of potential flood and offsite pollution (silt runoff) to neighbouring properties and water courses based on site topography. Given that the highest elevation onsite is located on the central northern boundary with ground sloping towards the east, southeast and south, VertaseFLI suggested the installation of mitigation measures that would include a bund on the northeastern boundary of the site, east of Kilroyd Drive and the access track to Merchant Fields Farm, as well as an extensive bund placed along the southern site boundary, south west of the Merchant Fields farmhouse. A V-ditch is proposed to be installed north of Merchant Fields farmhouse to direct runoff landing on the highest elevations onsite at Links Avenue towards the southwest where such surface water runoff will be captured by the larger bund on the southern boundary. The inclusion of silt fencing is proposed where considered necessary. Should silt fencing be required then such additional pollution

prevention measures would include installation of the fencing at least 1m internal to the site boundary.

3. Onsite Storage Capacities

VertaseFLI have subsequently undertaken a more quantitative risk assessment with regards to potential flooding and offsite pollution to adjacent properties and water courses. A phased approach to topsoil strip will include two parcels of land including a larger parcel (Phase 1 with an area of 67,202m²) in the western area of the site and a smaller parcel (Phase 2 with an area of 39,104m³) in the northeastern area. Phase 1 incorporates all land directly south of Links Avenue and up to the Merchant Fields farmhouse, as well as all remaining land west and southwest of the proposed V-ditch. Phase 2 incorporates all land south of Kilroy Avenue and east of Kilroy Drive. All surface water management calculations have been applied to both phases independently to provide a total volume of anticipated water based on the required design parameters.

The proposals are shown on Drawing D18723_B under Annex A. The parameters set for calculating the amount of storage required for each of these areas has been defined by the LLFA as requiring a 1 in 2-year storm and a 1 in 5-year storm event over a 360-minute (6 hour) storm duration.

To enable the storage to be calculated based on this, an assessment has to be made of the existing greenfield runoff rate for the site to calculate the flows that will be generated during these storm events. This will then be used to calculate each of the allocated areas shown on Drawing D18723_B to further define the storage volumes. The method used to obtain this was using the HR Wallingford FEH greenfield runoff rate calculator and utilising area specific FEH data.

For each of the areas it is assumed a worst-case scenario that the ground conditions have no infiltration, and runoff is treated as fully impermeable due to potential compaction and other construction related matters on site. It is highly likely that the actual onsite scenario will present ground that is more permeable than this and some of the calculated runoff will be intercepted. Therefore, the storage volumes presented are the worst-case scenario.

Phase 1:

Using the above noted parameters, the Phase 1 area storage volume has been calculated using the below breakdown and generating the total storage needed for 1 in 2, and 1 in 5-year storm events over 360 minutes:

Return Period: 2 year

Total area: 67,292m² (6.72ha)

FEH Statistical Greenfield runoff rate: 43.9l/s

Estimated storage required: **888m³**

Return Period: 5 year

Total area: 67,292m² (6.72ha)

FEH Statistical Greenfield runoff rate: 43.9l/s

Estimated storage required: **1,336m³**

Phase 2:

Using the above noted parameters the Phase 2 area storage volume has been calculated using the below breakdown and generating the total storage needed for 1 in 2, and 1 in 5-year storm events over 360 minutes:

Return Period: 2 year

Total area: 39,140m² (3.91ha)

FEH Statistical Greenfield runoff rate: 25.6l/s

Estimated storage required: **516m³**

Return Period: 5 year

Total area: 67,292m² (6.72ha)

FEH Statistical Greenfield runoff rate: 43.9l/s

Estimated storage required: **777m³**

4. Conclusion

Based on the calculations above for both Phases 1 and 2 using the site specific FEH statistical greenfield data for Cleckheaton, effective surface water containment can be achieved onsite with the installation of site boundary bunds. This is in accordance with the original proposed bund height of 1m by VertaseFLI. In addition to capturing surface water runoff with temporary storage in bunds, emptying of bunds in anticipation of recurrence of storm events can be achieved using onsite dust suppression plant and use of excess storm water for dust suppression onsite. Alternatively, excess storm water can be disposed offsite via tankers where required.

Yours Sincerely

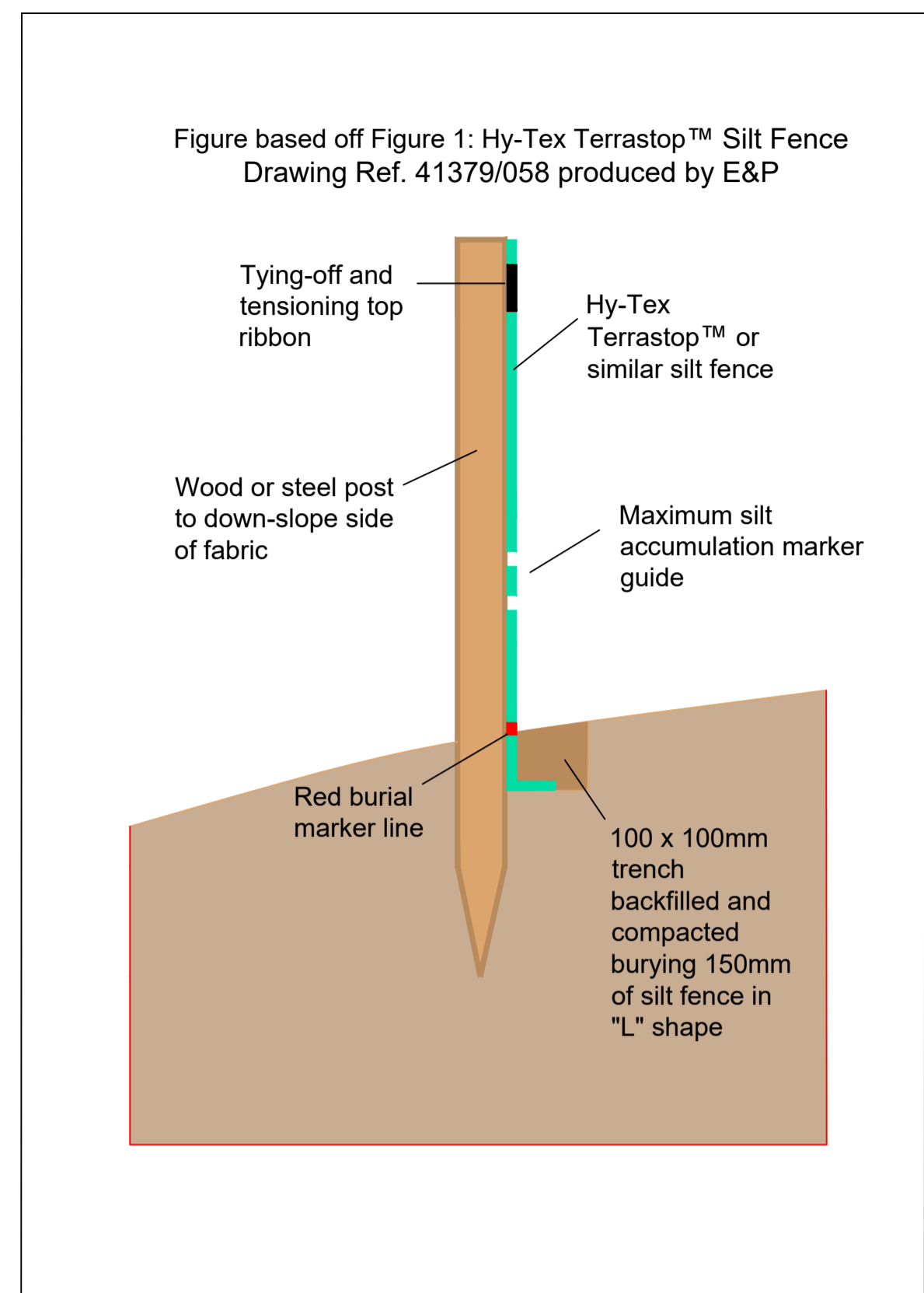
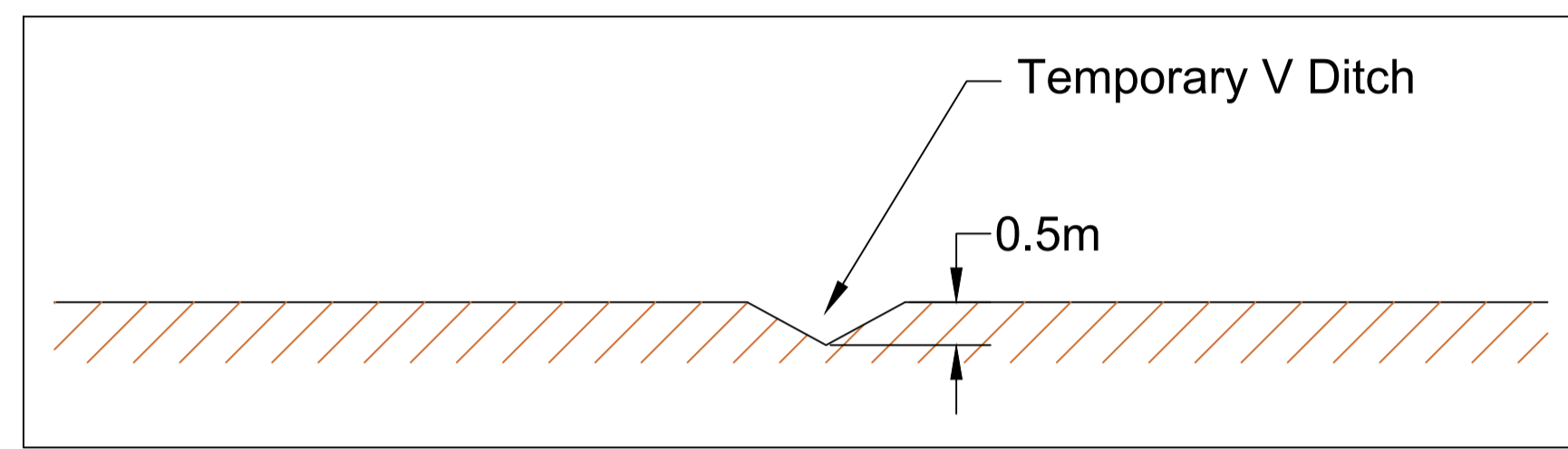
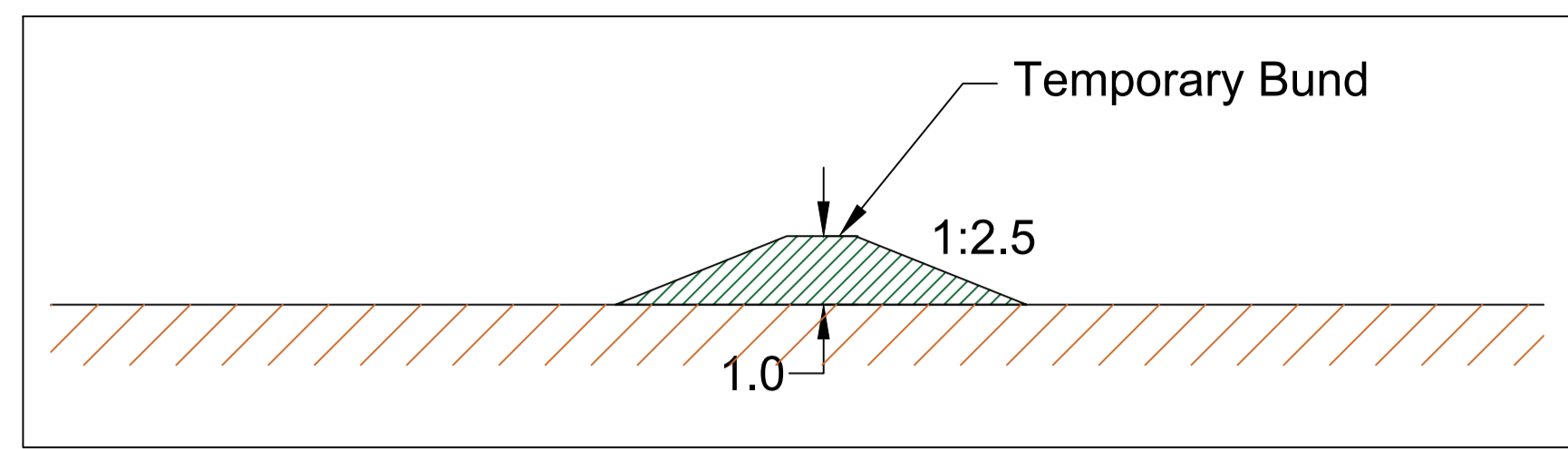


Vaughan Bramwell-Jones

Project Manager

For VertaseFLI Limited via email

Annex A: Drawings



Silt Fence Detail



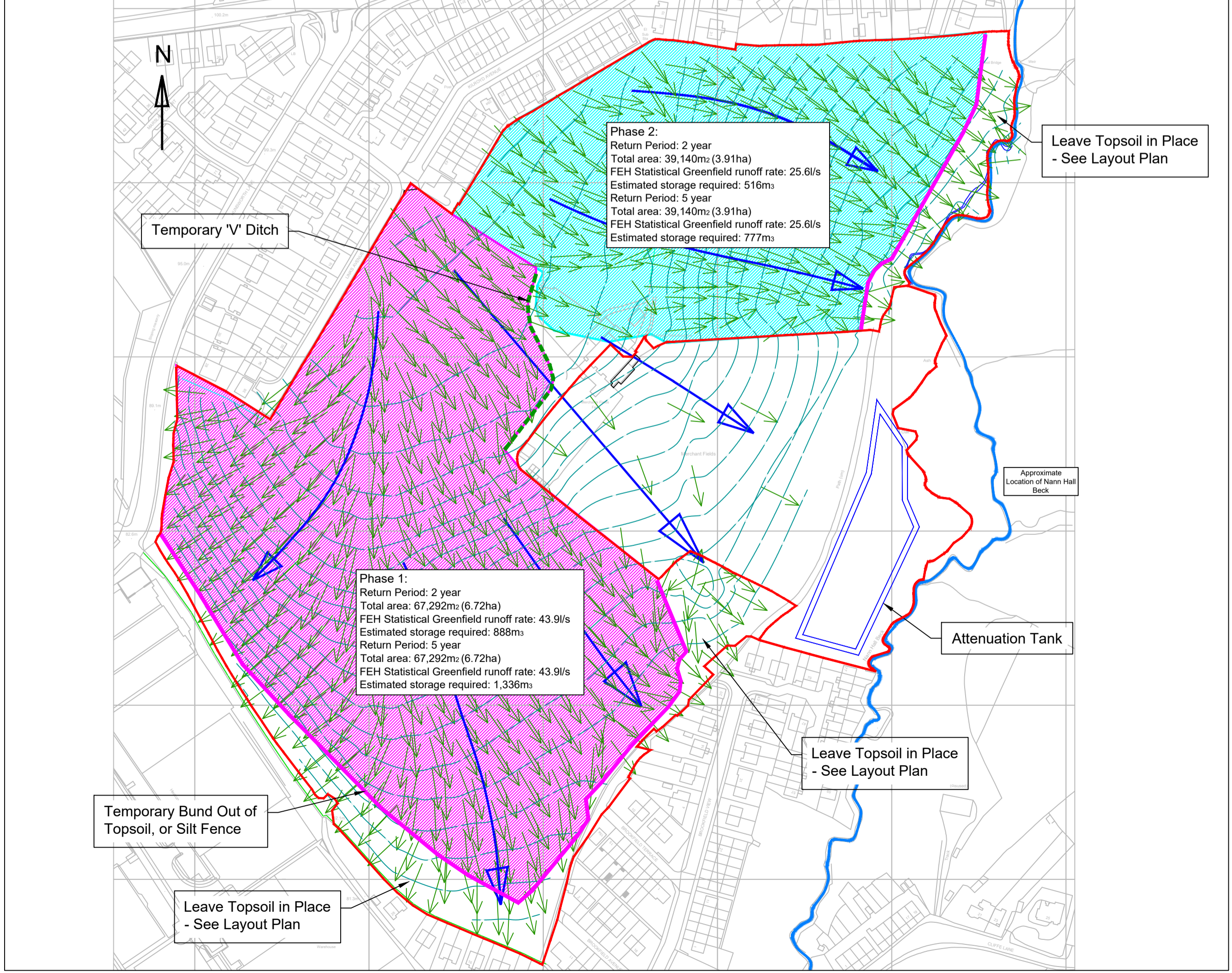
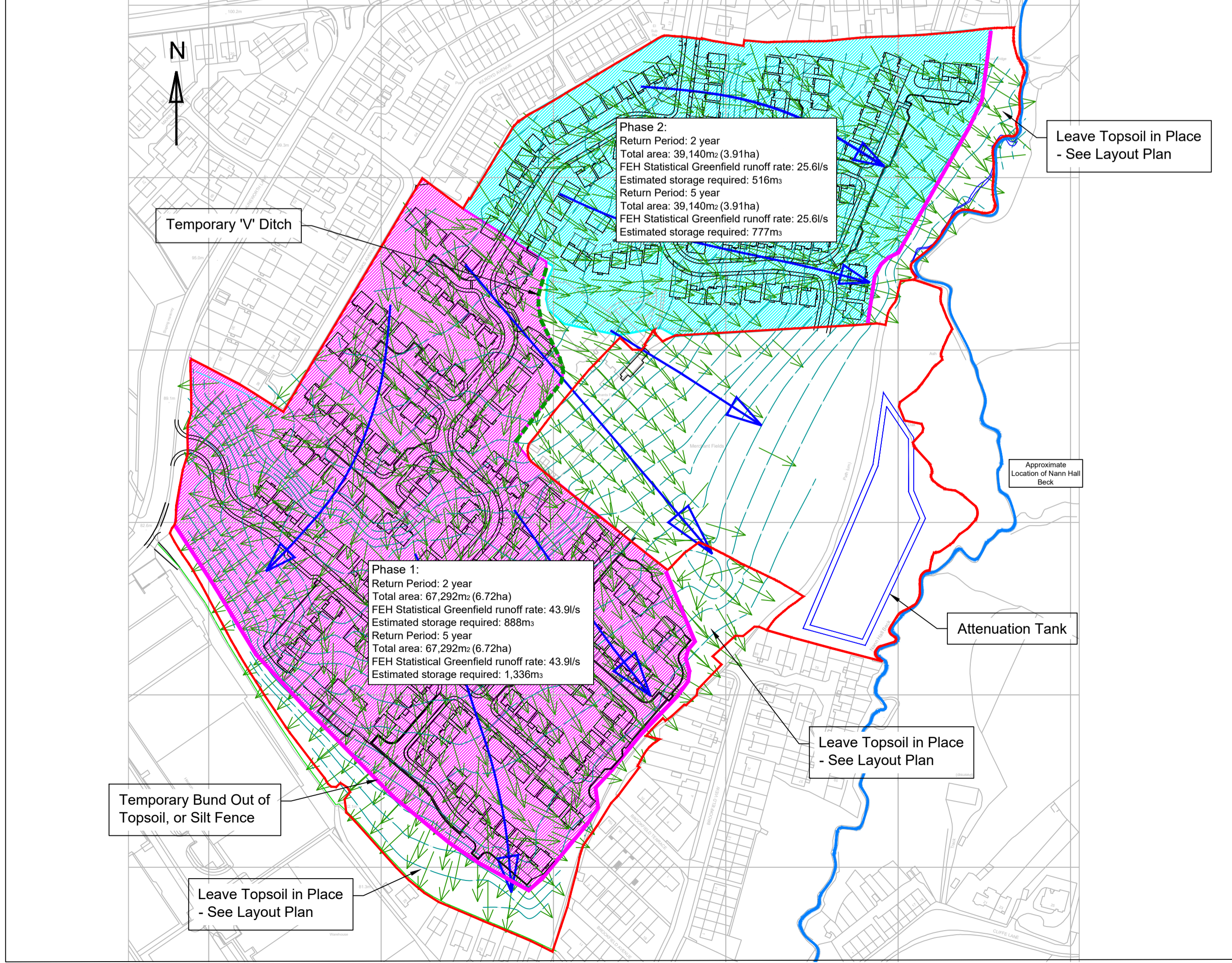
- Legend:
- Site Boundary
 - Surface Water Flow Direction
 - ~ Approximate Route of Nann Hall Beck
 - Temporary Bund
 - - - Temporary 'V' Ditch

Notes:
Proposed Design shown to Harron Homes Drawing 122-PL-01-P Rev R (25-03-2024)

Earthworks Surface Water Slope Arrows to September 2022 Design

Earthworks - Surface Water Management

Topsoil Removal - Surface Water Management (with Phased Approach to Topsoil Strip in Line with Earthworks 5-Phases)



Rev.	Description	Revised By	Date
B	Add Volume	JGL	14-07-2025
	FIRST ISSUE		05-06-24

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Site Address: Merchant Fields Cleckheaton
 Rev: B

Title: Surface Water Management Plan

Client: Harron Homes Ltd

Drawn: MRG	Checked: CL	Approved: CL
Dwg: D1874_23	Contract: 1874HHL	Scale: 1:2000