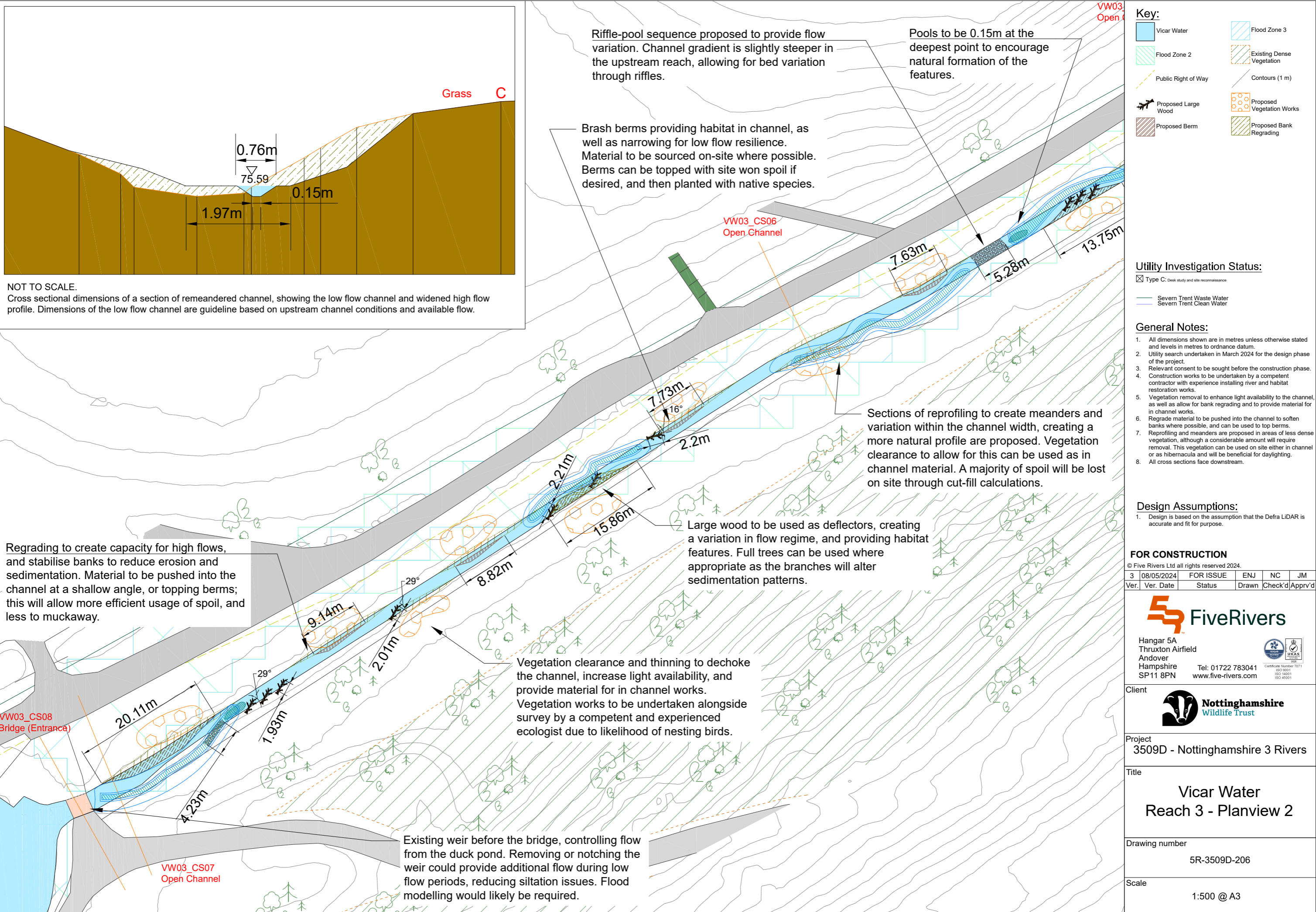


NOT TO SCALE.  
Cross sectional dimensions of a section of remeandered channel, showing the low flow channel and widened high flow profile. Dimensions of the low flow channel are guideline based on upstream channel conditions and available flow.

Riffle-pool sequence proposed to provide flow variation. Channel gradient is slightly steeper in the upstream reach, allowing for bed variation through riffles.

Pools to be 0.15m at the deepest point to encourage natural formation of the features.

Brush berms providing habitat in channel, as well as narrowing for low flow resilience. Material to be sourced on-site where possible. Berms can be topped with site won spoil if desired, and then planted with native species.



Sections of reprofiling to create meanders and variation within the channel width, creating a more natural profile are proposed. Vegetation clearance to allow for this can be used as in channel material. A majority of spoil will be lost on site through cut-fill calculations.

Large wood to be used as deflectors, creating a variation in flow regime, and providing habitat features. Full trees can be used where appropriate as the branches will alter sedimentation patterns.

Vegetation clearance and thinning to dechoke the channel, increase light availability, and provide material for in channel works. Vegetation works to be undertaken alongside survey by a competent and experienced ecologist due to likelihood of nesting birds.

Existing weir before the bridge, controlling flow from the duck pond. Removing or notching the weir could provide additional flow during low flow periods, reducing siltation issues. Flood modelling would likely be required.

Regrading to create capacity for high flows, and stabilise banks to reduce erosion and sedimentation. Material to be pushed into the channel at a shallow angle, or topping berms; this will allow more efficient usage of spoil, and less to muckaway.

**Key:**

	Vicar Water		Flood Zone 3
	Flood Zone 2		Existing Dense Vegetation
	Public Right of Way		Contours (1 m)
	Proposed Large Wood		Proposed Vegetation Works
	Proposed Berm		Proposed Bank Regrading

**Utility Investigation Status:**

Type C: Desk study and site reconnaissance

Severn Trent Waste Water  
Severn Trent Clean Water

**General Notes:**

- All dimensions shown are in metres unless otherwise stated and levels in metres to ordnance datum.
- Utility search undertaken in March 2024 for the design phase of the project.
- Relevant consent to be sought before the construction phase.
- Construction works to be undertaken by a competent contractor with experience installing river and habitat restoration works.
- Vegetation removal to enhance light availability to the channel, as well as allow for bank regrading and to provide material for in channel works.
- Regrade material to be pushed into the channel to soften banks where possible, and can be used to top berms.
- Reprofiling and meanders are proposed in areas of less dense vegetation, although a considerable amount will require removal. This vegetation can be used on site either in channel or as hibernacula and will be beneficial for daylighting.
- All cross sections face downstream.

**Design Assumptions:**

- Design is based on the assumption that the Defra LiDAR is accurate and fit for purpose.

**FOR CONSTRUCTION**

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Ver.	Ver. Date	Status	ENJ	NC	JM
3	08/05/2024	FOR ISSUE			



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Client  
Project  
3509D - Nottinghamshire 3 Rivers

Title  
**Vicar Water  
Reach 3 - Planview 2**

Drawing number  
5R-3509D-206

Scale  
1:500 @ A3