

Road Works	
Specification	Road construction to be as per Staffordshire Moorlands District Council specification.
Off-site works, Section 278 diversions	S278 works required to Western connection to Uttoxeter Road
3 rd Party land rights	Confirmation from Staffordshire Moorlands District Council & Severn Trent may be required for Surface Water and Foul Water outfall locations.
Visibility at site access	Veg clearance is anticipated to proposed site entrance to Western boundary.
Road Closure	Construction of site entrance may require a road closure permit to be applied for
Flat / Steep Gradients	Min highway gradient 1:100 longfall, max gradient 1:20 longfall allowed on vertical alignment as per Staffordshire Moorlands District Council design guide.

Drainage	
Downstream improvements	The existing GFRO for the site has been calculated by our hydrologists as 5l/s/ha. The proposed discharge rate = 3.1l/s as agreed under Planning App SMD/2018/0509 (based on 5l/s/ha). Plots 8-16 & 44-50 to utilise infiltration via permeable driveways, using an infiltration rate of 0.07272m/hr as identified within the Phase II Site Investigation soakaway testing results.
Imported backfill	Type 1 backfill to all Section 104 sewers with pea gravel bed and surround
Concrete surround	Localised concrete surround/protection is anticipated to be required on the drainage within scheme- see longsections
Hydrobrake outlet	The existing GFRO for the site has been calculated by our hydrologists as 5l/s/ha. The proposed discharge rate = 3.1l/s as agreed under Planning App SMD/2018/0509 (based on 5l/s/ha). Hydrobrake proposed is based on is the estimated greenfield runoff rate based on the proposed hardstanding area. <u>Hydrobrake:</u> S12 Hydrobrake Head: 2.786m Hydrobrake Specification: SHE-0066-3100-2786-3100 This is to be confirmed as acceptable from the relevant authorities.
Rock excavation	A review of the Defra Magic Maps states the site is within the central area of Staffordshire and the site is designated as a Secondary B bedrock aquifer and a Secondary A superficial aquifer designation.
Pump station depth / storage	1No. foul water pump station is proposed on this scheme which is proposed to connect to the proposed foul water

	sewer network, this network achieves a gravity connection to the outfall, discharge rates TBC by Severn Trent.
Deep Drainage	Depth varies throughout the scheme, however, there are deep proposals for both surface water and foul water drainage within Road 2.
Sewer diversion	No diversions required, refer to drainage strategy 10-01 for further details.
Grout redundant sewers	Sewers identified and proposed to be abandoned as per drainage strategy 10-01 are to be grubbed up and abandoned in full and are not to remain.
Land drainage	To be established at detailed design however it is recommended Salboy Ltd allow a per plot price for land drainage
Slope stability	No issues anticipated
Discharge rate	The existing GFRO for the site has been calculated by our hydrologists as 5l/s/ha. The proposed discharge rate has been pro-rata'd for each contributing impermeable area for each network, proposed restricted rate = 3.1l/s. Hydrobrake proposed is based on is the estimated greenfield runoff rate based on the proposed hardstanding area. Discharge rate agreed under Planning App SMD/2018/0509
Surface water attenuation	Oversized sewers and private offline geo-cellular attenuation crates proposed to cater for all events up to and including the 100 year +40% climate change +10% urban creep event. See engineering layout 10-01 for further details