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Drainage Strategy for Residential Development at Maes Y Ffynnon, Bonvilston for Vale of Glamorgan Housing

(Also refer to attached drawing 16055-DS01)

Surface Water Underground Drainage

The Development Advice Map shows the site in Flood Zone A. The MRW flood maps do not highlight any risk of surface water flooding to the proposed development site.

The ground infiltration test carried out by lan Farmer Associates as part of the geotechnical site investigation gave a result of 3.30E-05m/s in the ground underlying the site. This figure indicates that SUDS infiltration techniques, such as permeable paving, for the disposal of surface water will be feasible for the proposed development, designed for the 1 in 100 year +30% climate change storm event. Collection of rainwater for reuse by rainwater harvesting on this affordable housing project has been discounted on a cost and maintenance basis.

It is proposed that the surface water from the roofs is piped to permeable paving incorporated into the design of the individual private plot car parking areas. These surface water systems serving single properties are proposed to remain in the ownership of and be maintained in perpetuity by Vale of Glamorgan Housing.

It is proposed that the Section 278/38 adopted highway is constructed in permeable paving with surface water infiltrated to ground, owned and maintained in perpetuity by the Vale of Glamorgan Highways.

The use of permeable paving satisfies water quality requirements by the inherent treatment of hydrocarbons and the filtering of silt.

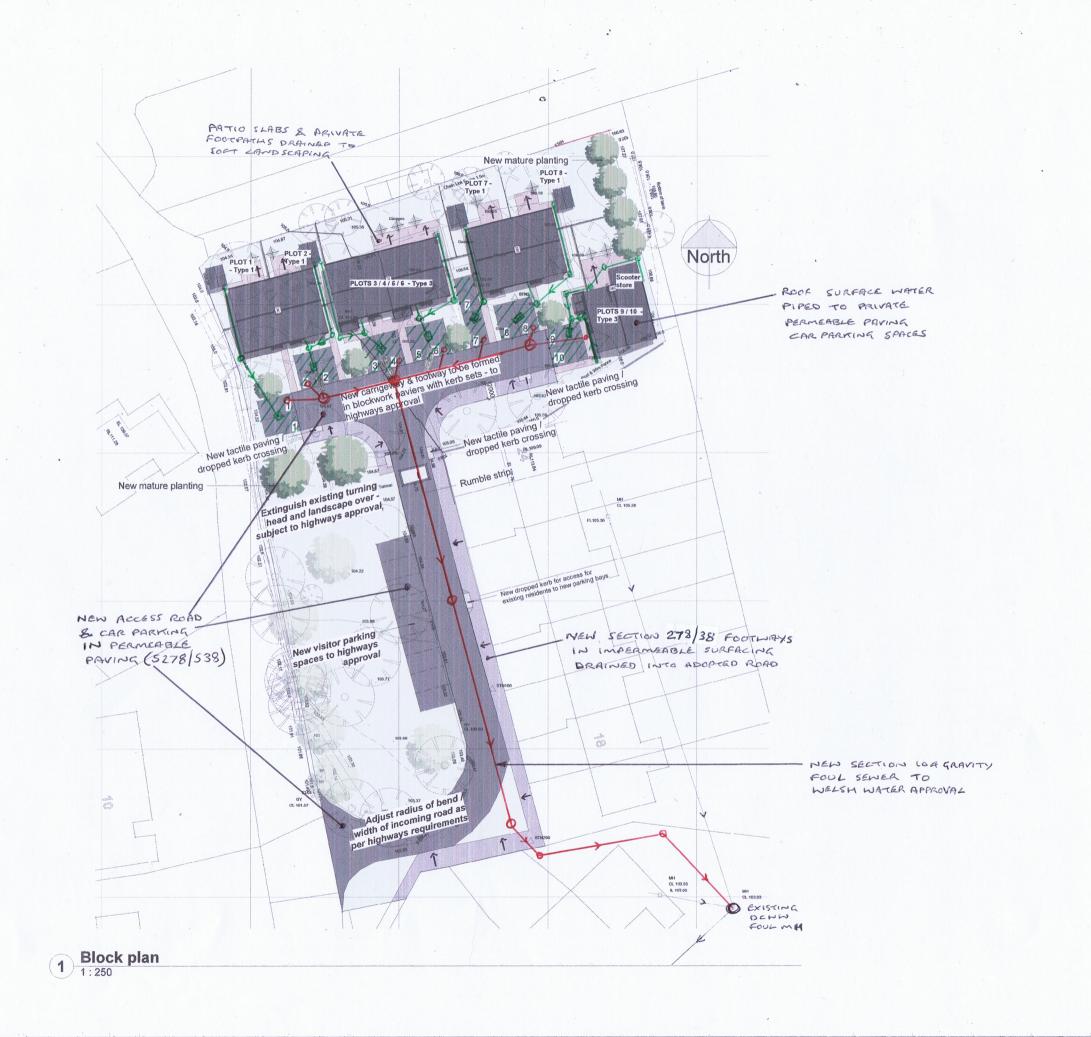
Foul Water Underground Drainage

The Welsh Water sewer plan for the area does not show any adopted sewers on the site.

There is a Welsh Water foul sewer in the rear garden of 16 Maes Y Ffynnon which will be suitable for a gravity connection from the proposed development. This property is serving the Vale of Glamorgan Council. The main foul sewers and lateral drains serving the development will be adopted by and maintained in perpetuity by Welsh Water under a Section 104 agreement and connected to this foul manhole following a Section 106 approval from Welsh Water.

The new plot foul sewers will be designed to current regulations and standards. These foul sewers will remain in the ownership of and be maintained in perpetuity by Vale of Glamorgan Housing.

<u>January 2019</u>



Do not scale this drawing. Check all dimensions on site. Any descrepancies to be reported back to the Architect for clarity. Maes-Y-Ffynon | Bonvilston Job Number: Date: JAN 2019 Drawn by: Dwg No: 16055-DS01 DRAINAGE STRATEGY Scale: 1:500@ A3 Drawing Status: PAC LODESTONE

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